



Cindy Phillips

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

October 6, 1997

Mr. Stanley J. Martin
General Manager, Big Bend Station
Tampa Electric Company
P. O. Box 111
Tampa, Florida 33601-0111

Re: DRAFT Title V Permit No.: 0570039-002-AV
Big Bend Station


Dear Mr. Martin:

The revised permitting authority's "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" for the Big Bend Station located at Big Bend Road, North Ruskin, Hillsborough County, is enclosed. This replaces the authority's "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" which was dated September 30, 1997.

The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" must be published as soon as possible upon receipt of this letter. This issue is important in order for you to receive your Title IV Acid Rain permit by January 1, 1998, pursuant to the Clean Air Act and Section 403.0872, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Scott M. Sheplak, P.E., at the above letterhead address. If you have any other questions, please contact Cindy L. Phillips, P.E., at 904/488-1344.

Sincerely,

for 
C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/p

Enclosures

cc: Ms. Carla E. Pierce, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)
Ms. Yolanda V. Adams, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

In the Matter of an
Application for Permit by:

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

DRAFT Permit No.: 0570039-002 -AV
Big Bend Station
Hillsborough County

INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, Tampa Electric Company, applied on June 14, 1996, to the permitting authority for a Title V air operation permit for the Big Bend Station located at Big Bend Road, North Ruskin, Hillsborough County.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. This source is not exempt from Title V permitting procedures. The permitting authority has determined that a Title V air operation permit is required to commence or continue operations at the described facility.

The permitting authority intends to issue this Title V air operation permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source 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.

Pursuant to Sections 403.815 and 403.0872, F.S., and Rules 62-103.150 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "**PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT.**" The 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. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 904/488-1344; Fax: 904/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150(6), F.A.C.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the enclosed Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The permitting authority will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S. Mediation under Section 120.573, F.S., will not be available for this proposed action.

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 (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 904/488-9730; Fax: 904/487-4938). Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any other person must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. A petitioner must 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 28-5.207, F.A.C.

A petition must contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;

(d) A statement of the material facts disputed by the petitioner, if any;

(e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;

(f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

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 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.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

- (a) The name, address, and telephone number of the petitioner;
- (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;
- (c) Each rule or portion of a rule from which a variance or waiver is requested;
- (d) The citation to the statute underlying (implemented by) the rule identified in (c) above;
- (e) The type of action requested;
- (f) The specific facts that would justify a variance or waiver for the petitioner;
- (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and,
- (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

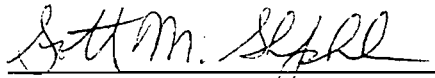
Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator

separately approves any variance or waiver in accordance with the procedures of the federal program.

Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) 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 issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this 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 401 M. Street, SW, Washington, D.C. 20460.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**



for

C. H. Fancy, P.E.

Chief

Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE) and all copies were sent by certified mail before the close of business on 10/7/97 to the person(s) listed:

Stanley J. Martin, R.O.
Patrick Ho, D.R.
Thomas W. Reese, Esq.

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE) were sent by U.S. mail on the same date to the person(s) listed:

Thomas W. Davis, P.E.
Janice Taylor, TECO
Iwan Choronenko, EPCHC
Bill Thomas, SWD

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. Boutwell 10/7/97
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Title V DRAFT Permit No.: 0570039-002-AV
Big Bend Station
Hillsborough County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit to Tampa Electric Company for the Big Bend Station located at Big Bend Road, North Ruskin, Hillsborough County. The applicant's name and address are: Tampa Electric Company, P. O. Box 111, Tampa, Florida, 33601-0111.
County.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Title V DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The permitting authority will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S. Mediation under Section 120.573, F.S., will not be available for this proposed action.

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 (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 904/488-9730; Fax: 904/487-4938). Petitions must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of the notice of intent, whichever occurs first. A petitioner must 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 applicable 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 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;
- (d) A statement of the material facts disputed by the petitioner, if any;
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;

(f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

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 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.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) 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 issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this 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 401 M. Street, SW, Washington, D.C. 20460.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 904/488-1344
Fax: 904/922-6979

Affected District and Local Programs:

Department of Environmental Protection, Southwest District Office
8407 Laurel Fair Circle
Tampa, Florida 33610
Telephone: 813/744-6100, ext. 107
Fax: 813/744-6458

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

The complete project file includes the DRAFT Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 904/488-1344, for additional information.

Mr. Scott M. Sheplak, P.E.
December 23, 1997
Page 2 of 2

Please note that pursuant to 40 CFR 76.6, a Phase II NOx Compliance Plan is not included for F.J. Gannon Station Boilers GB01 and GB02, which are exempted cyclone units with a Maximum Continuous steam Flow at 100% of Load of less than 1060, in thousands of lb/hr; nor for Polk Power Station Boiler **1, which commenced operation on April 20, 1996, and is not a defined boiler type for which a NOx emission limitation has been promulgated.

Should you have any questions or concerns regarding this matter, please contact Theresa Watley or me at 813/641-5034.

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

Sincerely,



Patrick A. Ho, P.E.
Designated Representative
Acid Rain Program

EP/gm/TJLW581

Enclosure

c: Brian Beals, USEPA
Scott Davis, USEPA Region IV
Iwan Choronenko, EPCHC

Florida Department of Environmental Protection

Phase II NO_x Compliance Plan

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

This submission is: New Revised

Page 1 of 2

STEP 1 Indicate plant name, state, and ORIS code from NADB, if applicable.	Plant Name Tampa Electric Company/ Big Bend Station	FL State	645 ORIS Code
STEP 2	Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.		

ID#	ID#	ID#	ID#	ID#	ID#
BB01	BB02	BB03	BB04		
Type	Type	Type	Type	Type	Type
WB	WB	WB	T		

(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for <u>Phase I</u> dry bottom wall-fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for <u>Phase I</u> tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for <u>Phase II</u> dry bottom wall-fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for <u>Phase II</u> tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(j) NO _x Averaging Plan (include NO _x Averaging form)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tampa Electric Company Big Bend Station <small>Plant Name (from Step 1)</small>

STEP 2, cont'd.

ID#	ID#	ID#	ID#	ID#	ID#
BB01	BB02	BB03	BB04		
Type	Type	Type	Type	Type	Type
WB	WB	WB	T		

(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO_x Averaging (check the NO_x Averaging Plan box and include NO_x Averaging Form)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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(p) Repowering extension plan approved or under review

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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STEP 3

Read the standard requirements and certification, enter the name of the designated representative, sign and date.

Standard Requirements

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

Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).

Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

STEP 3, cont'd.

Certification

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

Name	Patrick A. Ho	
Signature	<i>Patrick A. Ho</i>	Date 12/23/97

Permit #:0530021-001-AC PATS: Issue:17-NOV-1995 Expire:30-NOV-1998

Project #/Name	Owner	Type/Sub	Receive
001/PORTLAND CEMENT PLANT	FLORIDA CRUSHED STONE CO.,	AC /1A	12-JUL-1995
002/INITIAL TITLE V	FLORIDA CRUSHED STONE CO.,	AV /00	13-JUN-1996
003/FINISH MILL, E.V. 013	FLORIDA CRUSHED STONE CO.,	AO /MM	18-OCT-1996
004/CEMENT SILOS, E.U. 015	FLORIDA CRUSHED STONE CO.,	AO /MM	18-OCT-1996
005/LIME STORAGE SILOS	FLORIDA CRUSHED STONE CO.,	AO /MM	27-NOV-1996
001/NSPS CRUSHER, ETC.(OP'G P	FLORIDA CRUSHED STONE	AO /2B	27-JUL-1995
002/NSPS CRUSHER, ETC(CONST'N	FLORIDA CRUSHED STONE	AC /1F	27-JUL-1995
003/ST CATH MINE REISSURANCE	FLORIDA CRUSHED STONE	AC /1F	19-NOV-1996
001/NSPS CRUSHER, ETC.	FLORIDA CRUSHED STONE, GREG	AC /1F	10-AUG-1995
002/NSPS CRUSHER, ETC(OP'G PE	FLORIDA CRUSHED STONE, GREG	AO /2B	10-AUG-1995
003/MOBILE CRUSHING UNIT/DIES	FLORIDA CRUSHED STONE, GREG	AC /00	20-SEP-1996
001/NSPS CRUSHER, ETC.(CONS'N	FLORIDA CRUSHED STONE COMPA	AC /1F	27-JUL-1995
002/NSPS CRUSHER, ETC (OP'G P	FLORIDA CRUSHED STONE COMPA	AO /2B	27-JUL-1995
003/LIMESTONE DRYING & PROCES	FLORIDA CRUSHED STONE COMPA	AC /1C	19-SEP-1996
004/CENTER HILL MINE - REISSU	FLORIDA CRUSHED STONE COMPA	AC /1F	19-NOV-1996
001/LIME KILN	FLORIDA CRUSHED STONE COMPA	AC /1C	14-NOV-1996
002/CRUSHING/MATERIAL HANDLIN	FLORIDA CRUSHED STONE COMPA	AC /1D	14-NOV-1996
/RECEIVING HOPPER NO. 1	FLORIDA CRUSHED STONE	AC /05	06-FEB-1986
/FLYASH BIN (D-75)	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/FLYASH BIN (D-67)	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/RAW MILL (F-140)	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/BLENDING SILOS (G-12)	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/KILN FEE SURGE BIN (H-15)	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/IRON ORE BIN (D-63)	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/COOLER DISCHARGE (L-16)	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/CLINKER SILO (L-6)	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/GYPSUM & LIMESTONE BIN (L	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/SILO DISCHARGE (Q-15)	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/FINISH MILL (N-13)	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/CEMENT SILO DISCHARGE (Q-	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/CEMENT SILO (Q-15)	FLORIDA CRUSHED STONE CO.,	AO /2B	30-MAR-1989
/LIME SHIPPING (Z-17)	FLORIDA CRUSHED STONE CO.,	AO /2B	07-SEP-1990
/LIME STORAGE BINS (Z-15)	FLORIDA CRUSHED STONE CO.,	AO /2B	07-SEP-1990
/QUICK LIME SILO W/BAGHOUS	FLORIDA CRUSHED STONE CO.,	AO /2B	15-JAN-1992
/FINISH MILL FEED BELT	FLORIDA CRUSHED STONE CO.,	AO /2B	14-FEB-1992
/FLORIDA CRUSHED STONE/SIL	FLORIDA CRUSHED STONE COMPA	AO /2B	25-AUG-1993
/CEMENT RAILCAR LOADOUT	FLORIDA CRUSHED STONE CO.,	AO /1B	07-SEP-1993

At last record.
 Count: *37

<Replace>

copy: Tom Rogers
 AE
 11/4 Marty
 Cindy Scott
 Lenna Jim P
 11/5



Memorandum of Understanding (MOU) Nitrogen Oxide Emissions Rate Reductions

This MOU represents an agreement between the Environmental Protection Commission of Hillsborough County (EPC) and Tampa Electric Company (TEC), that supports TEC's Phase II nitrogen oxide (NOx) reduction activities and EPC's desire to partner with local industry to jointly address local environmental issues.

Whereas the EPC is responsible for protecting the quality of the air and the water for the citizens of this County,

Whereas the air borne emissions of nitrogen oxides may contribute to photochemical smog and ozone, to eutrophication and acidification of surface waters and to degradation of visibility;

Whereas the Tampa Electric Company locally operates ten coal-fired boilers which make up a significant portion of the area's total nitrogen oxide emission inventory;

Whereas the United States EPA has promulgated a nitrogen oxide emission reduction rule requiring tighter limitations for coal-fired boilers as part of their Acid Rain Program;

Whereas seven of the Tampa Electric Company's coal-fired boilers, designated as Gannon Unit 3, Gannon Unit 4, Gannon Unit 5, Gannon Unit 6, Big Bend Unit 1, Big Bend Unit 2, and Big Bend Unit 3 are subject to the EPA's Phase II Nitrogen Oxide Emission Reduction Rule;

Whereas the reductions in this EPA rule are not required until the year 2000 and there are substantial benefits for the area if the Tampa Electric Company were to commit to reduce emissions before the EPA deadline such as fewer precursors available for ozone formation or nitrogen deposition;

Whereas the Tampa Electric Company has already taken the initiative to reduce the nitrogen oxide emissions from some of the individual affected units by more than 20 percent, resulting in an overall reduction of over 10,000 tons from the 1995 levels;

Whereas the EPC believes the combustion modifications and fuel switching proposed by the Tampa Electric Company will address the secondary environmental impacts associated with nitrogen oxide emissions in the Tampa Bay area;

It is therefore agreed that the Tampa Electric Company will voluntarily commit to the EPC to meet the following NOx emission limitations for the Phase II affected units. EPC, in return, will maintain their position that these limits should apply on a federal level. These limitations will be on a system-wide, heat-input weighted, annual average basis, commencing 01/01/98 and extending until such time as one of the signatories voids the MOU as provided below:

<u>Affected Units</u>	<u>Maximum System-wide Annual Average</u>		
	<u>NOx Emission Rate</u>		
	<u>Eff. 01/01/98</u>	<u>Eff. 01/01/99</u>	<u>Eff. 01/01/00</u>
Gannon 3, 4, 5, 6 and Big Bend 1, 2, 3	1.03	0.96	0.91

These nitrogen oxide emission rates reflect that the Tampa Electric Company will maintain the reductions achieved in 1996 through 1998; make an additional 5% reduction in 1999; and make another 5% reduction in 2000. Adherence to this commitment will be determined by the Tampa Electric Company's Continuous Emission Monitors (CEMs) as reported to the EPA.

These limitations are in effect for both parties unless, or until the compliance date upon which, an EPA, a regional, a state or a local ruling requires the boilers to meet a more stringent NOx emission rate. At such time, this MOU may be voided by either party by stating their intention in writing.

This MOU shall take effect upon the date of execution by the Executive Director of the EPC; and shall terminate only as discussed above or upon the date of Tampa Electric Company's compliance with an EPA Phase II NOx Reduction Rule equivalent in stringency to this MOU.

For the Tampa Electric Company

Official Signature: [Signature]

Date: 10/29/97

For the Environmental Protection Commission

Executive Director Signature: [Signature]

Date: 10/27/97

Oct. 14 1997

TECO BIG BEND, GANNON MTS. RE: MODELING ISSUES
SO₂ Reduction

TECO: Janice Taylor, Patrick Ho
EPA: Al Trbovich

Larry Curtain, Attorney Holland & Knight

DEP: Scott, Lennon, Cleve, Pat Corner, Doug Blason, CUP

12030
12094
~~11348~~
~~8774~~
35472

8700
25
43800
175200
219,000

Date: 10/10/97 7:59:00 AM
From: Joseph Kahn TAL
Subject: Fast-Track Acid Rain Condition

Lennon,

Scott asked me to e-mail you the condition we added to the acid rain part for Fast-Track Acid Rain permitting:

A.4. Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62- 214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, Fast-Track Revisions of Acid Rain Parts.

Pretty simple.

-Joe

TO: Cleve Holladay ✓
Cindy Phillips, Lennon Anderson
Pat Comer, Doug Beason

FROM: Scott Sheplak *sm*
DATE: 10/9/97

Re: Tampa Electric Company (TEC) - Big Bend, Gannon

I set up a meeting on the subject company's DRAFT Title V permits for next Tuesday, October 14, 10-12 noon, in our conference room. Please advise whether or not you will be present.

TEC agreed to limit our discussion to modeling. Based on our modeling results, we reduced (TEC) - Big Bend's 24-hour SO₂ average from 25 tons/hour to 18.75 tons/hour (a 25% reduction) in their DRAFT Title V permit. Modeling may be required on the TEC - Gannon facility also.

Janice Taylor, Tampa Electric Company, will be bringing their attorney - Larry Curtain from Holland & Knight and their consultant modeller - Al Trbovich from ECT.

copy to: Clair Fancy

Date: 10/7/97 4:19:58 PM
From: Cindy Phillips TAL
Subject: Permit Summary in ARMS
To: Elizabeth Walker TAL

I've finished the permit summary for Title V facility no. 0570039, TECO Big Bend. If there's anything else I need to do, please let me know.

Date: 10/7/97 3:17:11 PM
From: Cindy Phillips TAL
Subject: DRAFT Permit Electronic Notification
To: Elizabeth Walker TAL

Here's the memo for the TECO Big Bend Title V permit. The files are at n:\bar\t5permit\0570039. I'm in the process of inputting the permit summary form info now.

Florida's DRAFT Permit Electronic Notification Cover Memorandum

TO: Yolanda V. Adams, U.S. EPA Region 4
CC: Carla E. Pierce, U.S. EPA Region 4
THRU: Scott M. Sheplak, P.E., Administrator, FDEP
Bureau of Air Regulation Title V Section
FROM: Cindy L. Phillips, P.E., Permit Engineer
DATE: 10/07/97
RE: U.S. EPA Region 4 DRAFT Title V Operation Permit Review

The following DRAFT Title V operation permits and associated documents have been posted on the DEP World Wide Web Internet site for your review. Please provide any comments via Internet E-mail, to Scott Sheplak, at Sheplak_S@dep.state.fl.us.

<u>Applicant Name</u>	<u>County</u>	<u>Method of Transmittal</u>	<u>Electronic File</u>
Tampa Electric Company Big Bend Station	Hillsborough	INTERNET	0570039p.zip

This zipped file contains the following electronic files:

0570039s.doc
0570039i.doc
0570039d.doc
0570039e.doc
0570039u.doc
0570039h.doc

BIG BEND SO₂ TESTS (LB/MMBTU)

	<u>UNIT 1</u>	<u>UNIT 2</u>	<u>UNIT 3</u>	<u>UNIT 4</u>
Allowable:	6.5	6.5	6.5/0.82	0.82
1997	—	—	—	[1287.6/3576(LB/Hr)]
1996	—	—	4.94	0.2
1995	1.45	1.19	—	0.56
1994	4.1	—	—	—
1993	4.4	—	3.9	0.6
1992	4.2	—	3.9	0.72
1991	—	—	—	0.45
1990	4.84	—	—	0.3
1989	4.3	—	3.4	—
1988	—	4.7	—	—

COMMISSION
DOTTIE BERGER
JOE CHILLURA
CHRIS HART
JIM NORMAN
JAN PLATT
THOMAS SCOTT
ED TURANCHIK



ADMINISTRATIVE OFFICES, LEGAL &
WATER MANAGEMENT DIVISION
1800 5TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960
FAX (813) 272-5157
AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-3530
WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-3788
WETLANDS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

EXECUTIVE DIRECTOR
ROGER E STEWART

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

FAX TRANSMITTAL SHEET

DATE: 9/25

TO: Cindy Phillips

FAX PHONE: _____ VOICE PHONE: _____

TOTAL NUMBER OF PAGES INCLUDING THIS COVER PAGE: 2

EPC FAX TRANSMISSION LINE: (813) 272-5605
FOR RETRANSMISSION OR ANY FAX PROBLEMS, CALL: (813) 272-5530

FROM: Alice Hauman
(CIRCLE APPLICABLE SECTION BELOW)

AIR DIVISION

- ENFORCEMENT
- ENGINEERING
- SUPPORT OPERATIONS

SPECIAL INSTRUCTIONS: TECO: Big Bend

Big Bend - TECO

Unit 3 = 4114 MMBtu/hr

Unit 4 = 4330 MMBtu/hr

From proposed information for testing: Oct 1995 from TECO

Pet. coke = 14400 Btu/lb
 Coal = 13230 Btu/lb

Modification / letter of author information:
 80% coal / 20% pet coke blend
 pet coke < 6% sulfur

Calc:

$$.80 (13230 \frac{\text{Btu}}{\text{lb}}) + .20 (14400 \frac{\text{Btu}}{\text{lb}}) = 13464 \frac{\text{Btu}}{\text{lb}} \text{ blend}$$

$$8445 \times 10^6 \frac{\text{Btu}}{\text{hr}} \times \frac{\text{lb}}{13464 \text{ Btu}} \times \frac{\text{ton}}{2000 \text{ lb}} = 313.6 \frac{\text{ton}}{\text{hr}} \text{ blend}$$

back calc to ton of pet coke / hr:

$$313.6 \frac{\text{ton}}{\text{hr}} \text{ blend} \times .20 \text{ pet coke} = 62.7 \frac{\text{ton}}{\text{hr}} \text{ pet coke}$$

(250.9 $\frac{\text{ton}}{\text{hr}}$ coal)

Assume 8760 hrs/yr:

$$\text{pet coke: } 62.7 \frac{\text{ton}}{\text{hr}} \times 8760 \frac{\text{hr}}{\text{yr}} = 549,427 \frac{\text{ton}}{\text{yr}} \text{ pet coke}$$

(2,197,884 $\frac{\text{ton}}{\text{yr}}$ coal)

Notes

Coal Yard
 March 1994

1,428,030 $\frac{\text{ton}}{\text{yr}}$ transloading of coal (4000 $\frac{\text{ton}}{\text{hr}}$ coal)

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9-18-97 TECO-GANNON

JANICE TAYLOR - TECO

EPC - RICK KIRBY, STERLIN WOODARD

BAR - CLAIR, SCOTT, LENNON

STARTUP - INCLUDES STARTUP OF UNITS + AUXILIARY EQUIPMENT
COFIRE NO. 2 $\frac{1}{2}$ COAL

X Testing only for pollutants of concern for used oil generated
X on-site that has been "characterized" over the years.

X Frequency base date change from 60 days to 90 days.
X based on guidance memo.

VE & PM Test Methods - sootblowing for non-sootblowing

Reporting & Recordkeeping for used oil

5-yr recordkeeping

Coal yard

east & west bucket loader

reword EPC rule language re: 1.1 lb/MMBTU

rotoclon testing ^{PM} frequency once prior to renewal
VE annual

Gannon COM weekly average and annual SO₂
Big Bend - Fuel Sampling and Analysis

Audlain OPAUM COM to replace COM for PM RAET $\frac{1}{2}$ Annual V.E.

Memorandum

Florida Department of
Environmental Protection

TO: Al Linero

FROM: Buck Oven *HSD*

DATE: August 20, 1997

SUBJECT: Tampa Electric Company, Big Bend Station, PA 79-12, Module 8022

RECEIVED

AUG 20 1997

BUREAU OF
AIR REGULATION

In discussing the modified Conditions of Certification for TECO's Big Bend Station with Cindy Phillips, she called my attention to a glitch that neither I, your folks, TECO or HCEPC caught. In my opinion Condition I.A.3.d. should read - "From each solid fossil fuel transloading source/emissions point (i.e. off-loading and loading of solid fossil fuel), the maximum ~~annual~~ daily transloading transfer of solid fossil fuel shall not exceed 4,000 tons, 24-hour rolling average." Condition 3.e. covers the annual cap. I am attaching the original modification language we adopted in 1995, for reference. Please have the appropriate staff review the proposed modification/clarification and advise me of any necessary changes.

Attach:

cc: Cindy Phillips

Updated language for use in FPC-Crystal River — See
Seminole Electric — Ed, Bruce
TEC - Big Bend — Cindy ✓

**Model Condition for Permit-Required Ambient Monitoring Specifications
(Non-PSD Monitoring)**

[M].1. Ambient Monitoring Specifications and Reporting Requirements. Ambient monitoring activities required by specific condition [M].[x] of this permit, for [sulfur dioxide, nitrogen dioxide and/or particulate matter measured as PM₁₀ or PM_{2.5}], shall be conducted in such a manner so as to meet the Department's minimum quality assurance requirements as delineated in 40 CFR Parts 50 and 58.14; Part 58, Appendices A, C, D and E; and the Department's *State-Wide Quality Assurance Air Program Plan*.

Scott
8/15

The owner or operator shall submit to the Department for review and approval [within 90 days of start-up of the required monitoring] or [within 90 days of the effective permit date for existing monitoring operations] standard operating procedures for each monitor, calibrator and ancillary piece of equipment utilized in the production of the required ambient air quality data.

The owner or operator shall submit the required monitoring data and quality assurance results to the Department's Bureau of Air Monitoring and Mobile Sources within ninety (90) days after the end of each calendar quarter in an electronic medium and format: either [Aerometric Information Retrieval System (AIRS)] or [Storage and Retrieval of Aerometric Data (SAROAD)] for the monitoring data, and the Precision and Accuracy Data (PAData) format for the quality assurance data.

The owner or operator shall allow Department auditors, with a minimum of seven (7) days prior notification, access to the monitoring locations for the purpose of the performance of accuracy audits which may be completed in lieu of, or in addition to, the owner or operator's quarterly accuracy audits as specified in 40 CFR, Part 58, Appendix A, 3.2 and 3.4. The owner or operator shall also submit to an annual systems audit as specified in 40 CFR, Part 58, Appendix A, 2.5. The systems audit, which reviews the quality assurance and monitoring effort for the preceding year, shall be conducted between February and June of the year following the year in which the audited data were produced. In addition, the Department staff shall be allowed access to the monitoring locations, with a minimum of seven (7) days prior notification, on an annual basis, for the purpose of determining compliance with the siting requirements as specified in 40 CFR, Part 58, Appendix E.

[Power Plant Siting Certification PA##-##; etc.]

[DEP electronic file location & name v:\models\ambmon.doc]

version dated 08/11/97

units (#) and (#) are regulated individually and must be tested individually. Due to the common stack, one unit must be shut down while the other unit is being tested.
[Rule 62-4.070(3), F.A.C.]

FedEx USA Airbill

Tracking Number

3793593031

FedEx Retrieval Copy
396 5 00212/00290

1 From

Date 7-18-97 Sender's FedEx Account Number 1215-2350-7

Sender's Name JANICE TAYLOR Phone (813) 671-3361

Company TAMPA ELECTRIC CO/PROD ENGR

Address 6944 US 41 NORTH

City APOLLO BEACH State FL Zip 33572

2 Your Internal Billing Reference Information 445 500 49 18 349

3 To Recipient's Name Scott Sheplak, JR., PE Phone (904) 488-1344

Company Florida Dept. of Env. Protection

Address 111 South Magnolia Drive, Ste. 4

City Tallahassee State FL Zip 32301

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3 7 9 3 5 9 3 0 3 1 BUREAU OF REGULATION



4a Express Package Service Packages under 150 lbs. Delivery commitment may be later in some areas.

1 FedEx Priority Overnight (Next business morning) 2 FedEx Standard Overnight (Next business afternoon) 3 FedEx 2Day* (Second business day)

6 NEW FedEx First Overnight (Earliest next business morning delivery to select locations) (Higher rates apply) *FedEx Letter Rate not available. Minimum charge: One pound FedEx 2Day rate.

4b Express Freight Service Packages over 150 lbs. Delivery commitment may be later in some areas.

7 FedEx Overnight Freight (Next business-day service for any distance) 8 FedEx 2Day Freight (Second business-day service for any distance) 83 FedEx Express Saver Freight (Up to 3 business-day service based upon distance) (Call for delivery schedule. See back for detailed descriptions of freight products.)

5 Packaging 6 FedEx Letter (Declared value limit \$200) 2 FedEx Pak 3 FedEx Box 4 FedEx Tube 5 Other Pkg.

6 Special Handling Does this shipment contain dangerous goods? 4 Yes (As per attached Shipper's Declaration) 5 Yes (Shipper's Declaration not required)

6 Dry Ice (Dry Ice, 9 UN 1845 III) (Dangerous Goods Shipper's Declaration not required) kg. 304 CA Cargo Aircraft Only

7 Payment Obtain Recipient FedEx Account No.

Bill to: 1 Sender (Account no. in section 1 will be billed) 2 Recipient (Enter FedEx account no. or Credit Card no. below) 3 Third Party 4 Credit Card 5 Cash/Check

FedEx Account No. Credit Card No. Exp. Date

Total Packages 1 Total Weight 20 Total Charges \$

*When declaring a value higher than \$100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY section for further information. Credit Card Auth.

8 Release Signature

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and hold harmless Federal Express from any resulting claims.

Check here if package was dropped off

272

WCSL 1296 Rev. Date 6/95 PART #147956 1994-96 FedEx PRINTED IN U.S.A.



TAMPA ELECTRIC

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JUL 21 1997

BUREAU OF AIR REGULATION

July 18, 1997

Mr. Scott Sheplak, Jr., P.E.
Administrator-Title V Section
Florida Department of Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Via FedEx
Airbill No. 3793593031

**Re: Tampa Electric Company - Big Bend Station
Title V Application Submittal
Request for Additional Information
FDEP File No. 0570039-002-AV**

Dear Mr. Sheplak:

Tampa Electric Company (TEC) received the Florida Department of Environmental Protection's (FDEP) request for additional information for our Big Bend Station on February 13, 1997. TEC received an extension of time from your office until July 19, 1997 for submittal of our responses. With regards to the referenced request for additional information, please find enclosed four (4) copies of our responses along with updated electronic permit applications, new Responsible Official and Professional Engineer certifications. Also include in this package is one (1) hard copy of the Title V application for your use.

Please feel free to telephone me at (813) 641-5039, if you have any questions or require any clarification. Thank-you.

Sincerely,

Janice K. Taylor
Senior Engineer
Environmental Planning

Enclosures

c: Cindy Phillips, FDEP-Tallahassee
Jerry Kissell, FDEP -SW District
Richard Kirby, EPCHC

EP1gmUKT810

TAMPA ELECTRIC COMPANY

P.O. BOX 1111

TAMPA, FL 33601-0111

HILLSBOROUGH COUNTY 223-0800

OUTSIDE OF HILLSBOROUGH COUNTY 1-888-223-0800

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TO: (NAME, OFFICE, LOCATION) 3. _____
 1. JOHN B. 4. _____
 2. _____ 5. _____

PLEASE PREPARE REPLY FOR:
 _____ SECRETARY'S SIGNATURE
 _____ DIV/DIST DIR SIGNATURE
 _____ MY SIGNATURE
 _____ YOUR SIGNATURE
 _____ DUE DATE _____

ACTION/DISPOSITION
 _____ DISCUSS WITH ME
 COMMENTS/ADVISE
 _____ REVIEW AND RETURN
 _____ SET UP MEETING
 _____ FOR YOUR INFORMATION
 _____ HANDLE APPROPRIATELY
 _____ INITIAL AND FORWARD
 _____ SHARE WITH STAFF
 _____ FOR YOUR FILES

COMMENTS: RE: TECO-BIG BEND
 HERE'S THE REVISION.
 I LEFT IN QUESTION #7
 BECAUSE IT IS IMPOSSIBLE
 FOR TECO TO MEET THIS SO₂
 LIMIT FOR THE UNITS
 THAT HAVE NO FGD
 WHEN THEY ARE BURNING
 COAL (WITH TYPICAL SULFUR
 CONTENT) WITH THE USED
 OIL (OR NO. 2 OIL.)
 LET ME KNOW WHAT YOU
 THINK.

FROM: CINDY DATE: 2/12/97 PHONE: _____

-DRAFT3-

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 12, 1997

Mr. Stanley Martin
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.

2. a) Where in the process is the coal sampled for analysis? b) Where in the process is the petroleum coke/coal blend sampled for analysis? c) What is the frequency of sampling and analysis? d) Please explain why the petcoke/coal blend fuel analyses parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.

3. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

4. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) Is this "on-spec" used oil? b) Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions

5. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

6. In the application, TEC's requested Methods of Compliance for SO₂ emissions limitations from the Steam Generators are as follows:

Unit No. 1, 2, or 3: weekly composite fuel sampling and fuel analysis
or continuous emission monitoring;
deletion of current requirement for annual stack testing
Units No. 1, 2, and 3, total group: daily composite fuel sampling and analysis;
deletion of current requirement for annual stack testing

In order to determine if an Alternate Sampling Procedure review is required, please answer the following questions. a) Is the fuel to be sampled and analyzed for calorific value? b) Is fuel sampling only to be used when the continuous monitor is not functional? c) Why is TEC not requesting to determine compliance with the total group emission limits by means of continuous emission monitoring? d) Is the monitoring equipment and procedure consistent with the requirements of 40 CFR 60 Appendix A Method 6C? e) Is TEC proposing **continuous compliance** while using the continuous SO₂ monitor?

7. Though not listed as such in the application, Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, ^{is an} applicable requirement for Units No. 1-4. This rule limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Please provide assurance as to how this limit will be met in each unit. ^{may be} ~~Is TEC requesting sulfur limits?~~ ^{if it applies to the facility. If it does not apply please explain why.}

8. Please clarify the following stack information provided in the application: a) For the nonintegrated mode, where is the SO₂ emissions sampling port for Steam Generator Unit No. 3? b) Why does Stack #3 include a recirculation duct and why is this not shown on the DOCUMENT I.I.D.3.G., OVERALL BOILER PROCESS FLOW DIAGRAM, and the BOILER NO. 4 TEST LOCATION - FIGURE 1? c) Why does the BOILER NO. 3 TEST LOCATION - FIGURE 1 show two ESP outlets to the stack and no FGD outlet? d) Based on DOCUMENT I.I.D.2.C., COMBUSTION EMISSION SOURCES, and DOCUMENT I.I.D.2.A., BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET, Combustion Sources CS-003 and CS-

Mr. Stanley Martin

January 1997

Page 3

004 have separate and distinct emission points (stacks). How can this be true for the integrated mode? Please revise these documents with notations about the integrated mode. e) Please provide a diagram of the Unit No. 3 integrated mode particulate emissions stack (duct) sampling location. f) Is the particulate sampling location shown in BOILER NO. 4 TEST LOCATION - FIGURE 1 the sampling location for the Boiler No. 4 in the integrated mode as well as the non-integrated mode?

9. Deletion of current annual visible emissions testing using EPA or FDEP Reference Method 9 was requested for Steam Generator Units 3 and 4 in the application. Is TEC proposing **continuous compliance** while using the continuous opacity monitors? Is **continuous compliance** being proposed for Unit 3 while it is operating in the non-integrated mode?

10. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the fossil fuel steam generators which have not received a PSD or New Source Review permit must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1, 2, and 3: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

11. Recent information, provided in EPA's final interim report on HAP emissions from fossil fuel-fired electric utility steam generating units, indicates that a large amount of hydrogen fluoride (and, therefore, total fluorides) may be emitted from the Big Bend Station. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application, as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption?

12. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units? c) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? d) Is the petcoke received from only one source? What reasonable assurance can be given that the petcoke is analyzed to the extent to verify that no major amounts of individual HAPS will be emitted from the facility, other than those already listed in the application?

13. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). a) By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or

has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption? b) If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.} c) By not listing arsenic compounds, chromium compounds, or manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons each of arsenic compounds, chromium compounds, and manganese compounds per year? What is the basis for this assumption? d) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds, chromium compounds, or manganese compounds as it does lead. Why are arsenic, chromium, and manganese compounds not identified as pollutants for the facility and each of the steam generator units?

14. The following hazardous air pollutants are listed in the application as being emitted from:

Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;

Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;

Steam Generator Unit No. 4 - Pb, HCl, and HF;

Combustion Turbine No. 1 - HCl ;

Combustion Turbine No. 2 - HCl, HF, and Ni;

Combustion Turbine No. 3 - HCl, and Mn.

a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?

b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?

c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn, when Combustion Turbines No. 1 and No. 2 do not?

d) Why does Steam Generator No. 3 emit 1,000 pounds or more per year of Mn, when Steam Generators Nos. 1, 2 and 4 do not?

15. Please provide the following additional information about control devices/methods: a) If TEC is adding ammonia to the flue gas from Unit No. 4, ammonia injection should be listed as a control device/method and a detailed description of the process should be submitted. b) If Stack #3 includes a recirculation duct to return exhaust gas to the inlet of the FGD scrubber, Flue Gas Recirculation should be listed as a control device/method and a detailed description of the process should be submitted. c) Please explain why, and in what quantities, TEC is adding SO₃ to the flue gases from Units Nos. 1-3, and quantify the effect on emissions. d) Is the SO₃ purchased or is it created on-site?

16. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

17. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please correct these emissions numbers.

18. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

19. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please submit this section if it is applicable.

20. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

21. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

22. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

23. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073.

24. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. a) Are there any vents or stacks associated with the enclosures? b) Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? c) Is conveyor belt

CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

25. The modified Conditions of Certification limit the maximum annual transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. We believe this is an error. Please contact Mr. Buck Oven in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.

26. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. Please provide the required process rate information for each transloading source/emissions point by completing the appropriate application sections. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

27. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted by rule, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

28. How many blending bins are there? Please describe how the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?

29. In the application, Table A-1 states that 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants, only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.

30. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?

31. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to any of the coal processing equipment.

32. The following information is requested in order to determine if there are additional sources of particulate matter emissions from solid fuel handling/processing that were not included in the application. a) In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION

SOURCE IDENTIFICATION KEY SHEET”, lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate “Transloading” storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time? b) In the application, DOCUMENT II.D.3.D., “FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD”, shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process? c) Application DOCUMENT II.D.3.F., “FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS”, shows emission points (FH-050 and FH-051) where the crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

33. a) Application DOCUMENT II.D.2.A., “BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET”, lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo? b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

34. Application DOCUMENT II.D.3.J., “LIMESTONE HANDLING PROCESS FLOW DIAGRAM”, shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

35. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

36. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

37. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several segments with the appropriate application sections completed. When creating segments consider operating characteristics. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is? Here are some suggested segments with corresponding SCCs:

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105

Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

38. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

39. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates appear to be 0.58 lb/hr and 0.42 tpy. Please recalculate and verify your numbers.

Fly Ash Handling and Storage Sources

40. a) How is the fly ash, dry and wet, transferred to the silos? b) What is the maximum loading rate to Silo #2? c) Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers? Does Silo #2 handle any wet (pug mill) transfer fly ash? d) How will the future connection between Silo #1 and Silo #2 (as indicated on DOCUMENT I.D.3.K.) impact particulate emissions?

41. In the application, DOCUMENT I.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT I.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from off-site actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one on-site fly ash silo to another?

Gypsum Handling and Storage Emission Sources

42. How is the actual sludge dewatering performed? Are there any fugitive particulate emissions associated with this process?

Slag and Bottom Ash Handling

43. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded? Are there any fugitive particulate emissions associated with this process?

Fuel Oil Storage and Handling

44. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates. (STR-001 and STR-002 contain No. 2 only per Table A-1.) Do the storage tank emit any VOCs or HAPs?

45. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

Abrasive Blast Media Storage

46. What type of abrasive blast media is used? Where does the blasting occur? Please provide information for this source so that it may be included in the Title V permit per Rule 210.300(3)(b).

Ship Repair Facility

47. Based on comments received from EPCHC, , during an EPCHC inspection on June 6, 1994, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this information for an after-the-fact construction application and submit a compliance plan, or indicate why this source does not need to be included in the Title V permit.

List of Proposed Exempt Activities

48. Currently, in order for an emissions unit and/activity to be "exempt" in the Title V permit, the emissions unit and/or activity cannot exceed one or more of the emissions thresholds or have a unit-specific requirement (see Rule 62-213.430(6), F.A.C.). Also, the Department has issued guidance on emission units and/or activities that are considered "trivial" (see enclosed DARM-PER/V-15, revised March 15, 1996). These emissions units and/or activities no longer need to be included in Title V permit applications. "Trivial" emission units and /or activities will not be included in the Title V permit. Please update your attachment "List of Proposed Exempt Activities" and provide sufficient information to classify the emissions units and/or activities into two new categories - those that are "exempt" and those that are "unregulated".

To properly update the "List of Proposed Exempt Activities" you need to consider the requirements of Rule 62-213.430(6), F.A.C. If the answer to any of the following questions is yes, an emissions unit and/or activity cannot be "exempt".

- (1) Does any unit or activity have a unit-specific applicable requirement?
- (2) Does any unit or activity emit, or have the potential to emit, equal to or greater than:
 - 1,000 pounds/year of any hazardous air pollutant (HAP);
 - 2,500 pounds/year of total HAPs; and/or
 - 5 TPY of any other regulated air pollutant, i.e, volatile organic compound (VOC)?

49. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon

Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

50. Do the vehicle refueling operations dispense 20,000 gallons/month or more of gasoline? If so, Stage I vapor control applies per Rule 62-252.300(1), F.A.C.

Miscellaneous

51. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling and/or washing procedures that are currently being utilized for the Big Bend Station.

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, your response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.

2. Your Title V application requested that a petcoke/coal blend be burned in Steam Generator Units No. 1 and No. 2. Approval to burn this fuel must be obtained through preconstruction

Mr. Stanley Martin
January 1997
Page 11

review (i.e., applying for and receiving an air construction permit). Subsequently, the Title V permit application or permit revision application can be submitted.

3. Though requested in the application, non-hazardous boiler chemical cleaning waste will not be listed as a permitted fuel in the Title V permit.

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or Mr. Scott M. Sheplak, P.E., at (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

Sincerely,

John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/SMS/CLP

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD
Thomas W. Reese, Esq.

Please copy me on final

DEP ROUTING AND TRANSMITTAL SLIP

TO: (NAME, OFFICE, LOCATION)

3. _____

1. SCOTT

4. _____

2. _____

5. → Cindy

PLEASE PREPARE REPLY FOR:

____ SECRETARY'S SIGNATURE

____ DIV/DIST DIR SIGNATURE

____ MY SIGNATURE

____ YOUR SIGNATURE

____ DUE DATE _____

ACTION/DISPOSITION

____ DISCUSS WITH ME

✓ COMMENTS/ADVISE

____ REVIEW AND RETURN

____ SET UP MEETING

____ FOR YOUR INFORMATION

____ HANDLE APPROPRIATELY

____ INITIAL AND FORWARD

____ SHARE WITH STAFF

____ FOR YOUR FILES

COMMENTS:

HERE'S THE REVISION FOR
BIG BEND.

Some minor edits & comments.

The review you've done
will be very helpful

for other coal fired
units, ie. Gulf Power

(Jonathan's).

I'd attach from long
form - -RO & PE cert pages
- Segrest pages.

Very good job. Thanks Scott

2/13/97

FROM:

CINDY

DATE:

2/12/97

PHONE:

-DRAFT3-

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 12, 1997

General Manager

Mr. Stanley Martin
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.

2. a) Where in the process is the coal sampled for analysis? b) Where in the process is the petroleum coke/coal blend sampled for analysis? c) What is the frequency of sampling and analysis? d) Please explain why the petcoke/coal blend fuel analyses parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.

3. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

4. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) Is this "on-spec" used oil? b) Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions

5. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

6. In the application, TEC's requested Methods of Compliance for SO₂ emissions limitations from the Steam Generators are as follows:

Unit No. 1, 2, or 3: weekly composite fuel sampling and fuel analysis
or continuous emission monitoring;
deletion of current requirement for annual stack testing

Units No. 1, 2, and 3, total group: daily composite fuel sampling and analysis;
deletion of current requirement for annual stack testing

In order to determine if an Alternate Sampling Procedure review is required, please answer the following questions. a) Is the fuel to be sampled and analyzed for calorific value? b) Is fuel sampling only to be used when the continuous monitor is not functional? c) Why is TEC not requesting to determine compliance with the total group emission limits by means of continuous emission monitoring? d) Is the monitoring equipment and procedure consistent with the requirements of 40 CFR 60 Appendix A Method 6C? e) Is TEC proposing continuous compliance while using the continuous SO₂ monitor?

Evaluating → 7. Though not listed as such in the application, Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, is an applicable requirement for Units No. 1-4. This rule limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Please provide assurance as to how this limit will be met in each unit. Is TEC requesting sulfur limits?

8. Please clarify the following stack information provided in the application: a) For the nonintegrated mode, where is the SO₂ emissions sampling port for Steam Generator Unit No. 3? b) Why does Stack #3 include a recirculation duct and why is this not shown on the DOCUMENT II.D.3.G., OVERALL BOILER PROCESS FLOW DIAGRAM, and the BOILER NO. 4 TEST LOCATION - FIGURE 1? c) Why does the BOILER NO. 3 TEST LOCATION - FIGURE 1 show two ESP outlets to the stack and no FGD outlet? d) Based on DOCUMENT II.D.2.C., COMBUSTION EMISSION SOURCES, and DOCUMENT II.D.2.A., BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET, Combustion Sources CS-003 and CS-

comment

We may
need
internal
help, re,
Mike Huskey

004 have separate and distinct emission points (stacks). How can this be true for the integrated mode? Please revise these documents with notations about the integrated mode. e) Please provide a diagram of the Unit No. 3 integrated mode particulate emissions stack (duct) sampling location. f) Is the particulate sampling location shown in BOILER NO. 4 TEST LOCATION - FIGURE 1 the sampling location for the Boiler No. 4 in the integrated mode as well as the non-integrated mode?

9. Deletion of current annual visible emissions testing using EPA or FDEP Reference Method 9 was requested for Steam Generator Units 3 and 4 in the application. Is TEC proposing **continuous compliance** while using the continuous opacity monitors? Is **continuous compliance** being proposed for Unit 3 while it is operating in the non-integrated mode?

10. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the fossil fuel steam generators which have not received a PSD or New Source Review permit must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1, 2, and 3: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

11. Recent information, provided in EPA's final interim report on HAP emissions from fossil fuel-fired electric utility steam generating units, indicates that a large amount of hydrogen fluoride (and, therefore, total fluorides) may be emitted from the Big Bend Station. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application, as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption?

12. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units? c) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? d) Is the petcoke received from only one source? What reasonable assurance can be given that the petcoke is analyzed to the extent to verify that no major amounts of individual HAPS will be emitted from the facility, other than those already listed in the application?

13. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). a) By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or

coal fired?

F- Fluorine

{comment}

see APPENDIX D
to long form

HAP (S. 112 pollutants)

Hydrogen fluoride (hydrofluoric acid) HF

"H107"

CAS# 7664-39-3

pollutant regulated
under S. 111 & 129
CAA

Fluorides - total
"FL"

(includes elemental fluorine
+ fluoride compounds)

Verified w/ hard copy?
In the past we have calc. entered some pollutants that were not included in AIR's.

has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption?
b) If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.} c) By not listing arsenic compounds, chromium compounds, or manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons each of arsenic compounds, chromium compounds, and manganese compounds per year? What is the basis for this assumption? d) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds, chromium compounds, or manganese compounds as it does lead. Why are arsenic, chromium, and manganese compounds not identified as pollutants for the facility and each of the steam generator units?

14. The following hazardous air pollutants are listed in the application as being emitted from:
- Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;
 - Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;
 - Steam Generator Unit No. 4 - Pb, HCl, and HF;
 - Combustion Turbine No. 1 - HCl ;
 - Combustion Turbine No. 2 - HCl, HF, and Ni;
 - Combustion Turbine No. 3 - HCl, and Mn.
- a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?
b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?
c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn, when Combustion Turbines No. 1 and No. 2 do not?
d) Why does Steam Generator No. 3 emit 1,000 pounds or more per year of Mn, when Steam Generators Nos. 1, 2 and 4 do not?

15. Please provide the following additional information about control devices/methods: a) If TEC is adding ammonia to the flue gas from Unit No. 4, ammonia injection should be listed as a control device/method and a detailed description of the process should be submitted. b) If Stack #3 includes a recirculation duct to return exhaust gas to the inlet of the FGD scrubber, Flue Gas Recirculation should be listed as a control device/method and a detailed description of the process should be submitted. c) Please explain why, and in what quantities, TEC is adding SO₃ to the flue gases from Units Nos. 1-3, and quantify the effect on emissions. d) Is the SO₃ purchased or is it created on-site?

good

16. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

17. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please correct these emissions numbers.

Mr. Stanley Martin

January 1997

Page 5

18. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

19. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please submit this section if it is applicable.

*confirm
explain?*

20. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

21. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

22. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

23. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073.

24. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. a) Are there any vents or stacks associated with the enclosures? b) Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? c) Is conveyor belt

Mr. Stanley Martin
January 1997
Page 6

(EPCHC)
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CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

25. The modified Conditions of Certification limit the maximum annual transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. We believe this is an error. Please contact Mr. Buck Oven in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.

good

26. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. Please provide the required process rate information for each transloading source/emissions point by completing the appropriate application sections. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

(segment)

27. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted by rule, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

28. How many blending bins are there? Please describe how the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?

29. In the application, Table A-1 states that 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants, only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.

30. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?

31. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to any of the coal processing equipment.

32. The following information is requested in order to determine if there are additional sources of particulate matter emissions from solid fuel handling/processing that were not included in the application. a) In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION

to help identify?
"Regulatory Applicability Analysis, Idenone APPEND - A, WP6"

SOURCE IDENTIFICATION KEY SHEET”, lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate “Transloading” storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time? b) In the application, DOCUMENT II.D.3.D., “FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD”, shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process? c) Application DOCUMENT II.D.3.F., “FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS”, shows emission points (FH-050 and FH-051) where the crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

33. a) Application DOCUMENT II.D.2.A., “BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET”, lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo? b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

34. Application DOCUMENT II.D.3.J., “LIMESTONE HANDLING PROCESS FLOW DIAGRAM”, shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

35. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

36. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

37. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several segments with the appropriate application sections completed. When creating segments consider operating characteristics. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is? Here are some suggested segments with corresponding SCCs:

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105

Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

38. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

39. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates appear to be 0.58 lb/hr and 0.42 tpy. Please recalculate and verify your numbers.

Fly Ash Handling and Storage Sources

40. a) How is the fly ash, dry and wet, transferred to the silos? b) What is the maximum loading rate to Silo #2? c) Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers? Does Silo #2 handle any wet (pug mill) transfer fly ash? d) How will the future connection between Silo #1 and Silo #2 (as indicated on DOCUMENT II.D.3.K.) impact particulate emissions?

41. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT II.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from off-site actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one on-site fly ash silo to another?

Gypsum Handling and Storage Emission Sources

42. How is the actual sludge dewatering performed? Are there any fugitive particulate emissions associated with this process?

Slag and Bottom Ash Handling

43. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded? Are there any fugitive particulate emissions associated with this process?

Fuel Oil Storage and Handling

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add'l sources
of air pollutants!*

Mr. Stanley Martin

January 1997

Page 9

44. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates. (STR-001 and STR-002 contain No. 2 only per Table A-1.) Do the storage tank emit any VOCs or HAPs?

45. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

Abrasive Blast Media Storage

46. What type of abrasive blast media is used? Where does the blasting occur? Please provide information for this source so that it may be included in the Title V permit per Rule 210.300(3)(b).

Ship Repair Facility

47. Based on comments received from EPCHC, during an EPCHC inspection on June 6, 1994, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this information for an after-the-fact construction application and submit a compliance plan, or indicate why this source does not need to be included in the Title V permit.

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Please explain!

List of Proposed Exempt Activities

48. Currently, in order for an emissions unit and/activity to be "exempt" in the Title V permit, the emissions unit and/or activity cannot exceed one or more of the emissions thresholds or have a unit-specific requirement (see Rule 62-213.430(6), F.A.C.). Also, the Department has issued guidance on emission units and/or activities that are considered "trivial" (see enclosed DARM-PER/V-15, revised March 15, 1996). These emissions units and/or activities no longer need to be included in Title V permit applications. "Trivial" emission units and/or activities will not be included in the Title V permit. Please update your attachment "List of Proposed Exempt Activities" and provide sufficient information to classify the emissions units and/or activities into two new categories - those that are "exempt" and those that are "unregulated".

To properly update the "List of Proposed Exempt Activities" you need to consider the requirements of Rule 62-213.430(6), F.A.C. If the answer to any of the following questions is yes, an emissions unit and/or activity cannot be "exempt".

- (1) Does any unit or activity have a unit-specific applicable requirement?
- (2) Does any unit or activity emit, or have the potential to emit, equal to or greater than:
 - 1,000 pounds/year of any hazardous air pollutant (HAP);
 - 2,500 pounds/year of total HAPs; and/or
 - 5 TPY of any other regulated air pollutant, i.e, volatile organic compound (VOC)?

49. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon

Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

50. Do the vehicle refueling operations dispense 20,000 gallons/month or more of gasoline? If so, Stage I vapor control applies per Rule 62-252.300(1), F.A.C.

Miscellaneous

51. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling and/or washing procedures that are currently being utilized for the Big Bend Station.

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, you response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.

2. Your Title V application requested that a petcoke/coal blend be burned in Steam Generator Units No. 1 and No. 2. Approval to burn this fuel must be obtained through preconstruction

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Mr. Stanley Martin
January 1997
Page 11

review (i.e., applying for and receiving an air construction permit). Subsequently, the Title V permit application or permit revision application can be submitted.

3. Though requested in the application, non-hazardous boiler chemical cleaning waste will not be listed as a permitted fuel in the Title V permit.

①
If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or Mr. Scott M. Sheplak, P.E., at (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

Sincerely,

John C. Brown, Jr., P.E.
Administrator
Title V Section

small
→ JCB/SMS/CLP

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD
Thomas W. Reese, Esq.

-DRAFT2-

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

January 1997

Mr. Stanley Martin
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. On what date did TEC first fire the petcoke/coal blend fuel in Unit No. 4? In Unit No. 3?
2. Specific Condition No. 6 of permit PSD-FL-040 requires post-construction continuous ambient monitoring of sulfur dioxide emissions until determined by the Administrator (or his/her representative) that the effects of the modification on ambient air quality have been quantified. Has the Administrator (or his/her representative) made this determination yet?
3. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.

4. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. ~~How long has TEC been using No. 2 fuel oil for start-up in each unit, and What has been the maximum annual usage of No. 2 fuel oil in each unit?~~ Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

5. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. ~~a) How long has TEC been using used oil to supplement the solid fuel in each unit? b) Is this "on-spec" used oil? c) What has been the maximum annual usage of used oil in each unit? Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions. d) Were the amounts of HAP emissions generated from the burning of used oil considered and included when the potential HAP emissions were identified for the steam generator units and total facility? e) Is the used oil received from only one source? f) What reasonable assurance can be given that the used oil is analyzed to the extent that no major amounts of HAPs will be emitted from the facility, other than those listed in the application? g) How are NO_x emissions affected by the firing of used oil?~~

Save to look at notes.

6. Although the application states that solid fuels may be supplemented with up to 50 gallons per minute of non-hazardous boiler chemical cleaning waste, the use of cleaning waste is not addressed in current operation permits for these units. a) How long has TEC been using boiler chemical cleaning waste to "supplement" the solid fuel in each unit? What is the heat input value (MMBtu/gallon) of the waste? b) What is the maximum number of gallons burned in each unit on an annual basis? Please submit the Segment (Process/Fuel) Information for boiler chemical cleaning waste for these emission units as required by DEP Form No. 62-210.900(1)-Instructions. c) Assuming it is a batch process, how many batches of boiler cleaning chemical are used to clean a boiler during the cleaning process and how many gallons are in a batch? d) After passing through the boiler, is the hazardous content of the first-pass batch of cleaning solution less than 50 ppm? e) Were the amounts of HAP emissions generated from the burning of the waste considered and included when the potential HAP emissions were identified for the steam generator units and total facility?

Comment why it be included in permit

7. a) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? b) Is the petcoke received from only one source? c) What reasonable assurance can be given that the petcoke is analyzed to the extent that no major amounts of HAPs will be emitted from the facility, other than those listed in the application?

Move to 18

8. Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Since the application includes the burning of used oil and boiler chemical cleaning waste, please provide assurance that the SO₂ limit will not be exceeded while burning them. Is TEC requesting sulfur limits?

Put as condition in permit

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9. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

10. In the application, TEC's requested Methods of Compliance for SO₂ emissions limitations from the Steam Generators are as follows:

- Unit No. 1, 2, or 3: weekly composite fuel sampling and fuel analysis
or continuous emission monitoring;
deletion of current requirement for annual stack testing
- Units No. 1, 2, and 3, total group: daily composite fuel sampling and analysis;
deletion of current requirement for annual stack testing

In order to determine if an Alternate Sampling Procedure review is required, please answer the following questions. a) Is the fuel to be sampled and analyzed for calorific value? b) Is fuel sampling only to be used when the continuous monitor is not functional? c) Why is TEC not requesting to determine compliance with the total group emission limits by means of continuous emission monitoring? d) Is the monitoring equipment and procedure consistent with the requirements of 40 CFR 60 Appendix A Method 6C? e) Is TEC proposing continuous compliance while using the continuous SO₂ monitor?

11. Please explain, in more detail, how compliance with each of the sulfur dioxide limitations is currently determined. For example, please submit documentation to show that each of the Steam Generator Units No. 1 - 4 was in compliance with all of the sulfur dioxide limitations on January 1, 1997. If a unit was not operating on January 1, 1997, please show that it was in compliance on the first day it was in operation in 1997.

12. a) For the nonintegrated mode, where is the SO₂ emissions sampling port for Steam Generator Unit No. 3? b) Why does Stack #3 include a recirculation duct and why is this not shown on the DOCUMENT II.D.3.G., OVERALL BOILER PROCESS FLOW DIAGRAM, and the BOILER NO. 4 TEST LOCATION - FIGURE 1? c) Why does the BOILER NO. 3 TEST LOCATION - FIGURE 1 show two ESP outlets to the stack and no FGD outlet?

13. Based on DOCUMENT II.D.2.C., COMBUSTION EMISSION SOURCES, and DOCUMENT II.D.2.A., BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET, Combustion Sources CS-003 and CS-004 have separate and distinct emission points (stacks). a) How can this be true for the integrated mode? Please revise these documents with notations about the integrated mode. b) ~~For Steam Generator Units No. 3 and No. 4, is TEC requesting annual particulate stack testing conducted for each unit in the integrated mode or the non-integrated mode if both modes have been utilized during the federal fiscal year?~~ c) Please provide a diagram of the Unit No. 3 integrated mode particulate emissions stack (duct) sampling location. d) Is the particulate sampling location shown in BOILER NO. 4 TEST LOCATION - FIGURE 1 the sampling location for the Boiler No. 4 in the integrated mode as well as the non-integrated mode? e) By requesting, for Units No. 3 and 4, the option to use three soot-blowing test runs to demonstrate compliance with the non-soot blowing standard, is TEC stating that the non-

Put all scenarios in permit.

The rule requires stacking

Mr. Stanley Martin

January 1997

Page 4

sootblowing standard can always be met while in the soot-blowing mode? f) Is TEC proposing continuous compliance while using the continuous opacity monitor?

14. Please specify whether compliance with the nitrogen oxides (NO_x) emissions limits for Steam Generator Units No. 3 and No. 4 shall be determined by measuring the NO_x emitted from each individual unit or by measuring the emissions from the common stacks.

15. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the fossil fuel steam generators which have not received a PSD or New Source Review permit must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1, 2, 3 maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

16. During an EPCHC inspection performed on September 16, 1996, significant fugitive emissions were observed coming from the Steam Generator Unit No. 2 furnace. Please explain what actions have been, or will be, taken to correct this problem. Please address the control of fugitive emissions in the maintenance plan of each of the steam generators.

17. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption? Recent information from EPA

18. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption? If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.}

19. a) By not listing manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of manganese compounds per year? What is the basis for this assumption? b) If the facility does not exceed this major source threshold for manganese compounds, why are the manganese compounds emissions for Steam Generator Unit No. 3 identified in the emissions unit Pollutant Information section? c) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much manganese compounds as it does lead. Why is manganese only identified as being emitted from Steam Generator No. 3 and not Units 1, 2, or 4?

wait until permit all 3 modes per year

Mr. Stanley Martin

January 1997

Page 5

20. a) By not listing arsenic compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of arsenic compounds per year? What is the basis for this assumption?
b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds as it does lead. Why is arsenic not identified as a pollutant for the facility and each of the steam generator units?

21. a) By not listing chromium compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of chromium compounds per year? What is the basis for this assumption?
b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit twice as much chromium compounds as it does lead. Why is chromium not identified as a pollutant for the facility and each of the steam generator units?

22. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units?

23. The following hazardous air pollutants are listed in the application as being emitted from:

Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;

Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;

Steam Generator Unit No. 4 - Pb, HCl, and HF;

Combustion Turbine No. 1 - HCl ;

Combustion Turbine No. 2 - HCl, HF, and Ni;

Combustion Turbine No. 3 - HCl, and Mn.

a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?

b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?

c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn when Combustion Turbines No. 1 and No. 2 do not?

24. Please explain why, and in what quantities, TEC is currently reinjecting fly ash to the flue gases, and quantify the effect on emissions. When did TEC begin reinjecting fly ash to the flue gases?

25. a) ~~Please explain why, and in what quantities, TEC is currently adding ammonia to the flue gas from Unit No. 4, and SO₃ to the flue gases from Units No. 1-3, and quantify the effect on emissions. When did TEC begin adding ammonia and SO₃ to the flue gases?~~ ^{IF}

26. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

Any ammonia injection should be listed as a control device and a detailed description should be submitted.

Mr. Stanley Martin

January 1997

Page 6

27. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please explain this discrepancy.

Put in permit

28. The maximum annual rate of No. 2 distillate fuel oil burned in each of the three combustion turbines (as submitted in the application), divided by the maximum hourly burning rate for each of the three turbines (as submitted in the application), indicates that each turbine operates 8760 hours per year. However, the construction permits for the turbines limit the hours of operation to 10 hrs/day, 365 days a year, which equates to 3650 hours per year. Please explain this discrepancy.

29. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

30. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please submit this section if it is applicable.

31. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

32. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

33. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

34. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed

efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073. ~~Please certify that the coal yard is in compliance pursuant to this condition of certification and provide the required control device information or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.~~ *Wait for response*

35. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. ~~Are, in fact, all of the conveyors and transfer points enclosed?~~ Are there any vents or stacks associated with the enclosures? Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? Is conveyor belt CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

36. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

37. The modified Conditions of Certification limit the maximum annual transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. *Is TEC We believe this is an*
or not ~~actually complying with the more stringent transloading limit of 4000 tons per-year? If TEC does not want this more stringent annual limit included in the Title V permit, please contact Mr. Buck Owen in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.~~

38. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. *A review of the report*
~~This information is not on file. Please submit these missing 1994 and 1995 annual process rates. Please provide the required process rate information for each transloading source/emissions point and certify that the combined total amount of transloading of solid fuel at each transloading source/emission point is in compliance pursuant to the conditions of certification or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.~~ *Does not provide this information. Please correct.*

39. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

Please describe
40. How many blending bins are there? How are the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?

41. Where in the process is the coal sampled for analysis? Where in the process is the petroleum coke/coal blend sampled for analysis? What is the frequency of sampling and analysis?

42. ~~Please explain why more recent fuel analyses for the coal/petroleum coke blend fired in Steam Generator Unit No. 4 were not submitted with the application.~~ Please explain why the fuel analyses ^{for petcoke blend} parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.

43. In the application, Table A-1 states that 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants, only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.

44. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?

45. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to the coal handling equipment. Based on the process rate table, and a process rate of 4000 tons/hour, the allowable particulate matter emission rate for the solid fuel handling equipment is 285.8 tons/year.

46. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate "Transloading" storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time?

47. In the application, DOCUMENT II.D.3.D., "FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD", shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process?

Is there another emission point?
48. Application DOCUMENT II.D.3.F., "FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS", shows emission points (FH-050 and FH-051) where the crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

49. a) Application DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? ~~What are the collection ranges of each of the baghouses? For instance, is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo?~~ b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? What are the collection ranges of each of the baghouses? For instance, is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

50. Application DOCUMENT II.D.3.J., "LIMESTONE HANDLING PROCESS FLOW DIAGRAM", shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

51. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

52. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

53. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several ^{segments} ~~emission units~~ with the appropriate application sections completed. When creating emission units consider operating modes. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is? Here are some suggested emission units with corresponding SCCs:

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105
Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

54. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

55. The exit grain loading estimates are based on the high moisture content of the limestone. What is the moisture content? What is the basis of the estimate of an exit grain loading of 0.002 gr/dscf for limestone of this moisture content? Please provide additional information to document the source of this emission factor. Is this factor based on stack testing, vendor's guarantee, or some other data?

56. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates would be 0.58 lb/hr and 0.42 tpy. Please explain ~~this discrepancy~~. *Recalculate and verify your numbers.*

57. ~~Is it possible for a limestone railcar to unload while a limestone truck is unloading?~~

58. ~~What are the estimated annual fugitive emissions from the limestone truck traffic?~~

Fly Ash Handling and Storage Sources

59. The application requests, and the current permit reflects, an allowable emission limitation of 22.62 tons/year based on a baghouse emission factor of 0.03 gr/dscf. The application states that the 0.03 gr/dscf factor is "Typical baghouse exit loading: ECT, 1995." Please provide additional information to document the source of this emission factor. Is this factor based on stack testing, vendor's guarantee, or some other data?

60. In the application, DOCUMENT I.I.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", shows a "FUTURE" connection between Silo #1 and Silo #2. Please explain. *Coordinate the change report.*

61. Does Silo #2 handle any wet (pug/mill) transfer fly ash?

62. How is the fly ash, dry and wet, transferred to the silos? What is the maximum loading rate to Silo #2? Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers?

63. In the application, DOCUMENT I.I.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT I.I.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from off-site actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one on-site fly ash silo to another?

64. ~~What are the estimated annual fugitive emissions from the fly ash truck traffic?~~

Gypsum Handling and Storage Emission Sources

*Move to
Comments*

Mr. Stanley Martin

January 1997

Page 11

65. In the application, DOCUMENT II.D.2.A, "BIG BEND STATIONARY EMISSION SOURCE IDENTIFICATION KEY SHEET", describes empty trucks (emission points GH-006 and GH-017, as going "to Off-Site". Is this correct, or would it be more accurate to say that the empty trucks are coming "from Off-Site"?

66. ^{Does} ~~What is the minimum moisture content of the gypsum that is being loaded onto the trucks in~~ ^{the} the North Stackout Area? In the Long Term Storage Area? ^{at any point}

67. ^{How are there any fugitive emissions associated with} ~~Where is the actual sludge dewatering performed? It does not appear to be identified on any of the figures included in the application.~~

Slag and Bottom Ash Handling

68. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded?

Fuel Oil Storage and Handling

69. Is all fuel oil brought into the facility by barge and then pumped to the fuel oil storage tanks? What is the total number of fuel oil storage tanks?

70. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates. (STR-001 and STR-002 No. 2 only per Table A-1.)

71. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

72. The Used Oil Analysis submitted in the application lists the "Sample Collector" as "GANNON". Was Gannon actually the name of the person who collected the sample, or was this sample collected at the TEC Gannon facility?

Sulfur Storage and Handling

73. Please explain why this equipment was never permitted. You must submit the required after-the-fact construction permit application information for this equipment and submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

Abrasive Blast Media Storage

74. What type of abrasive blast media is used? Where does the blasting occur? ~~Please explain why this emission unit was never permitted.~~ ^{Please 210.300(3)(b) provide information}

Ship Repair Facility

^{Based on comments from EPCHC}
75. On June 6, 1994, during an EPCHC inspection, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC

provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this application information. *for an after-the-fact*
compliance application and a compliance plan or indicate why it does not need to be included in the permit.

List of Proposed Exempt Activities

76. Currently, in order for an emissions unit and/activity to be "exempt" in the Title V permit, the emissions unit and/or activity cannot exceed one or more of the emissions thresholds or have a unit-specific requirement (see Rule 62-213.430(6), F.A.C.). Also, the Department has issued guidance on emission units and/or activities that are considered "trivial" (see enclosed DARM-PER/V-15, revised March 15, 1996). These emissions units and/or activities no longer need to be included in Title V permit applications. "Trivial" emission units and/or activities will not be included in the Title V permit. Please update your attachment "List of Proposed Exempt Activities" and provide sufficient information to classify the emissions units and/or activities into two new categories - those that are "exempt" and those that are "unregulated".

To properly update the "List of Proposed Exempt Activities" you need to consider the requirements of Rule 62-213.430(6), F.A.C. If the answer to any of the following questions is yes, an emissions unit and/or activity cannot be "exempt".

- (1) Does any unit or activity have a unit-specific applicable requirement?
- (2) Does any unit or activity emit, or have the potential to emit, equal to or greater than:
 - 1,000 pounds/year of any hazardous air pollutant (HAP);
 - 2,500 pounds/year of total HAPs; and/or
 - 5 TPY of any other regulated air pollutant, i.e, volatile organic compound (VOC)?

77. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

Combine
78. Do the storage tanks listed emit VOCs or HAPs?

79. Do the vehicle refueling operations dispense more than 20,000 gallons/month of gasoline? If so, Stage I vapor control applies. *Rule cite 252*

80. *solid conveyors are not*
Which belt conveyors are being referred to in this list?

Miscellaneous

81. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling and/or washing procedures that are currently being utilized at the Big Bend Station.

Bold
Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Bold
Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, your response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.
2. Your Title V application requested that a petcoke/coal blend be burned in Steam Generator Units No. 1 and No.2. Approval to burn this fuel must be obtained through preconstruction review (i.e., applying for and receiving an air construction permit). Subsequently, the Title V permit application or permit revision application can be submitted.

~~The Department must receive a response from you (the applicant) within 90 days of receipt of this letter, unless you request additional time as described in Rule 62-213.420 (1)(b)6., F.A.C. Failure to submit corrected or supplementary information within 90 days, or such additional time as requested and granted, shall render the application incomplete.~~

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or ~~me at~~ *Scott Shepley P.E.* (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

Sincerely,

Mr. Stanley Martin
January 1997
Page 14

John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/clp

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD
Thomas W. Reese, Esq.

-DRAFT2-

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

January 1997

Mr. Stanley Martin
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. On what date did TEC first fire the petcoke/coal blend fuel in Unit No. 4? In Unit No. 3?
2. Specific Condition No. 6 of permit PSD-FL-040 requires post-construction continuous ambient monitoring of sulfuric dioxide emissions until determined by the Administrator (or his/her representative) that the effects of the modification on ambient air quality have been quantified. Has the Administrator (or his/her representative) made this determination yet?
3. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.

4. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. How long has TEC been using No. 2 fuel oil for start-up in each unit, and what has been the maximum annual usage of No. 2 fuel oil in each unit? Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

5. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) How long has TEC been using used oil to supplement the solid fuel in each unit? b) Is this "on-spec" used oil? c) What has been the maximum annual usage of used oil in each unit? Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions. d) Were the amounts of HAP emissions generated from the burning of used oil considered and included when the potential HAP emissions were identified for the steam generator units and total facility? e) Is the used oil received from only one source? f) What reasonable assurance can be given that the used oil is analyzed to the extent that no major amounts of HAPs will be emitted from the facility, other than those listed in the application? g) How are NO_x emissions affected by the firing of used oil?

6. Although the application states that solid fuels may be supplemented with up to 50 gallons per minute of non-hazardous boiler chemical cleaning waste, the use of cleaning waste is not addressed in current operation permits for these units. a) How long has TEC been using boiler chemical cleaning waste to "supplement" the solid fuel in each unit? What is the heat input value (MMBtu/gallon) of the waste? b) What is the maximum number of gallons burned in each unit on an annual basis? Please submit the Segment (Process/Fuel) Information for boiler chemical cleaning waste for these emission units as required by DEP Form No. 62-210.900(1)-Instructions. c) Assuming it is a batch process, how many batches of boiler cleaning chemical are used to clean a boiler during the cleaning process and how many gallons are in a batch? d) After passing through the boiler, is the hazardous content of the first-pass batch of cleaning solution less than 50 ppm? e) Were the amounts of HAP emissions generated from the burning of the waste considered and included when the potential HAP emissions were identified for the steam generator units and total facility?

7. a) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? b) Is the petcoke received from only one source? c) What reasonable assurance can be given that the petcoke is analyzed to the extent that no major amounts of HAPs will be emitted from the facility, other than those listed in the application?

8. Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Since the application includes the burning of used oil and boiler chemical cleaning waste, please provide assurance that the SO₂ limit will not be exceeded while burning them. Is TEC requesting sulfur limits?

Mr. Stanley Martin

January 1997

Page 4

sootblowing standard can always be met while in the soot-blowing mode? f) Is TEC proposing continuous compliance while using the continuous opacity monitor?

14. Please specify whether compliance with the nitrogen oxides (NO_x) emissions limits for Steam Generator Units No. 3 and No. 4 shall be determined by measuring the NO_x emitted from each individual unit or by measuring the emissions from the common stacks.

15. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the fossil fuel steam generators which have not received a PSD or New Source Review permit must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1- 2: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

16. During an EPCHC inspection performed on September 16, 1996, significant fugitive emissions were observed coming from the Steam Generator Unit No. 2 furnace. Please explain what actions have been, or will be, taken to correct this problem. Please address the control of fugitive emissions in the maintenance plan of each of the steam generators.

17. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption?

18. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption? If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.}

19. a) By not listing manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of manganese compounds per year? What is the basis for this assumption? b) If the facility does not exceed this major source threshold for manganese compounds, why are the manganese compounds emissions for Steam Generator Unit No. 3 identified in the emissions unit Pollutant Information section? c) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much manganese compounds as it does lead. Why is manganese only identified as being emitted from Steam Generator No. 3 and not Units 1, 2, or 4?

20. a) By not listing arsenic compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of arsenic compounds per year? What is the basis for this assumption?

b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds as it does lead. Why is arsenic not identified as a pollutant for the facility and each of the steam generator units?

21. a) By not listing chromium compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of chromium compounds per year? What is the basis for this assumption?

b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit twice as much chromium compounds as it does lead. Why is chromium not identified as a pollutant for the facility and each of the steam generator units?

22. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption?

b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units?

23. The following hazardous air pollutants are listed in the application as being emitted from:

Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;

Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;

Steam Generator Unit No. 4 - Pb, HCl, and HF;

Combustion Turbine No. 1 - HCl ;

Combustion Turbine No. 2 - HCl, HF, and Ni;

Combustion Turbine No. 3 - HCl, and Mn.

a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?

b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?

c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn when Combustion Turbines No. 1 and No. 2 do not?

24. Please explain why, and in what quantities, TEC is currently reinjecting fly ash to the flue gases, and quantify the effect on emissions. When did TEC begin reinjecting fly ash to the flue gases?

25. a) Please explain why, and in what quantities, TEC is currently adding ammonia to the flue gas from Unit No. 4, and SO₃ to the flue gases from Units No. 1-3, and quantify the effect on emissions. When did TEC begin adding ammonia and SO₃ to the flue gases?

26. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

27. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please explain this discrepancy.

28. The maximum annual rate of No. 2 distillate fuel oil burned in each of the three combustion turbines (as submitted in the application), divided by the maximum hourly burning rate for each of the three turbines (as submitted in the application), indicates that each turbine operates 8760 hours per year. However, the construction permits for the turbines limit the hours of operation to 10 hrs/day, 365 days a year, which equates to 3650 hours per year. Please explain this discrepancy.

29. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

30. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please submit this section if it is applicable.

31. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

32. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

33. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

34. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed

efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073. Please certify that the coal yard is in compliance pursuant to this condition of certification and provide the required control device information or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

35. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. Are, in fact, all of the conveyors and transfer points enclosed? Are there any vents or stacks associated with the enclosures? Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? Is conveyor belt CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

36. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

37. The modified Conditions of Certification limit the maximum annual transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. Is TEC actually complying with the more stringent transloading limit of 4000 tons per year? If TEC does not want this more stringent annual limit included in the Title V permit, please contact Mr. Buck Oven in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.

38. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. This information is not on file. Please submit these missing 1994 and 1995 annual process rates. Please provide the required process rate information for each transloading source/emissions point and certify that the combined total amount of transloading of solid fuel at each transloading source/emission point is in compliance pursuant to the conditions of certification or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

39. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

Mr. Stanley Martin

January 1997

Page 8

40. How many blending bins are there? How are the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?
41. Where in the process is the coal sampled for analysis? Where in the process is the petroleum coke/coal blend sampled for analysis? What is the frequency of sampling and analysis?
42. Please explain why more recent fuel analyses for the coal/petroleum coke blend fired in Steam Generator Unit No. 4 were not submitted with the application. Please explain why the fuel analyses parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.
43. In the application, Table A-1 states that 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants, only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.
44. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?
45. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to the coal handling equipment. Based on the process rate table, and a process rate of 4000 tons/hour, the allowable particulate matter emission rate for the solid fuel handling equipment is 285.8 tons/year.
46. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate "Transloading" storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time?
47. In the application, DOCUMENT II.D.3.D., "FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD", shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process?
48. Application DOCUMENT II.D.3.F., "FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS", shows emission points (FH-050 and FH-051) where the crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

49. a) Application DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? What are the collection ranges of each of the baghouses? For instance, is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo? b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? What are the collection ranges of each of the baghouses? For instance, is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

50. Application DOCUMENT II.D.3.J., "LIMESTONE HANDLING PROCESS FLOW DIAGRAM", shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

51. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

52. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

53. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several emission units with the appropriate application sections completed. When creating emission units consider operating modes. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is? Here are some suggested emission units with corresponding SCCs:

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105
Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

54. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

55. The exit grain loading estimates are based on the high moisture content of the limestone. What is the moisture content? What is the basis of the estimate of an exit grain loading of 0.002 gr/dscf for limestone of this moisture content? Please provide additional information to document the source of this emission factor. Is this factor based on stack testing, vendor's guarantee, or some other data?

56. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates would be 0.58 lb/hr and 0.42 tpy. Please explain this discrepancy.

57. Is it possible for a limestone railcar to unload while a limestone truck is unloading?

58. What are the estimated annual fugitive emissions from the limestone truck traffic?

Fly Ash Handling and Storage Sources

59. The application requests, and the current permit reflects, an allowable emission limitation of 22.62 tons/year based on a baghouse emission factor of 0.03 gr/dscf. The application states that the 0.03 gr/dscf factor is "Typical baghouse exit loading: ECT, 1995." Please provide additional information to document the source of this emission factor. Is this factor based on stack testing, vendor's guarantee, or some other data?

60. In the application, DOCUMENT I.I.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", shows a "FUTURE" connection between Silo #1 and Silo #2. Please explain.

61. Does Silo #2 handle any wet (pug mill) transfer fly ash?

62. How is the fly ash, dry and wet, transferred to the silos? What is the maximum loading rate to Silo #2? Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers?

63. In the application, DOCUMENT I.I.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT I.I.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from off-site actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one on-site fly ash silo to another?

64. What are the estimated annual fugitive emissions from the fly ash truck traffic?

Gypsum Handling and Storage Emission Sources

65. In the application, DOCUMENT II.D.2.A., "BIG BEND STATIONARY EMISSION SOURCE IDENTIFICATION KEY SHEET", describes empty trucks (emission points GH-006 and GH-017 as going "to Off-Site". Is this correct, or would it be more accurate to say that the empty trucks are coming "from Off-Site"?

66. What is the minimum moisture content of the gypsum that is being loaded onto the trucks in the North Stackout Area? In the Long Term Storage Area?

67. Where is the actual sludge dewatering performed? It does not appear to be identified on any of the figures included in the application.

Slag and Bottom Ash Handling

68. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded?

Fuel Oil Storage and Handling

69. Is all fuel oil brought into the facility by barge and then pumped to the fuel oil storage tanks? What is the total number of fuel oil storage tanks?

70. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates.(STR-001 and STR-002 No. 2 only per Table A-1.)

71. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

72. The Used Oil Analysis submitted in the application lists the "Sample Collector" as "GANNON". Was Gannon actually the name of the person who collected the sample, or was this sample collected at the TEC Gannon facility?

Sulfur Storage and Handling

73. Please explain why this equipment was never permitted. You must submit the required after-the-fact construction permit application information for this equipment and submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

Abrasive Blast Media Storage

74. What type of abrasive blast media is used? Where does the blasting occur? Please explain why this emission unit was never permitted.

Ship Repair Facility

75. On June 6, 1994, during an EPCHC inspection, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC

provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this application information.

List of Proposed Exempt Activities

76. Currently, in order for an emissions unit and/activity to be "exempt" in the Title V permit, the emissions unit and/or activity cannot exceed one or more of the emissions thresholds or have a unit-specific requirement (see Rule 62-213.430(6), F.A.C.). Also, the Department has issued guidance on emission units and/or activities that are considered "trivial" (see enclosed DARM-PER/V-15, revised March 15, 1996). These emissions units and/or activities no longer need to be included in Title V permit applications. "Trivial" emission units and /or activities will not be included in the Title V permit. Please update your attachment "List of Proposed Exempt Activities" and provide sufficient information to classify the emissions units and/or activities into two new categories - those that are "exempt" and those that are "unregulated".

To properly update the "List of Proposed Exempt Activities" you need to consider the requirements of Rule 62-213.430(6), F.A.C. If the answer to any of the following questions is yes, an emissions unit and/or activity cannot be "exempt".

- (1) Does any unit or activity have a unit-specific applicable requirement?
- (2) Does any unit or activity emit, or have the potential to emit, equal to or greater than:
 - 1,000 pounds/year of any hazardous air pollutant (HAP);
 - 2,500 pounds/year of total HAPs; and/or
 - 5 TPY of any other regulated air pollutant, i.e, volatile organic compound (VOC)?

77. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

78. Do the storage tanks listed emit VOCs or HAPs?

79. Do the vehicle refueling operations dispense more than 20,000 gallons/month of gasoline? If so, Stage I vapor control applies.

80. Which belt conveyors are being referred to in this list?

Miscellaneous

81. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling and/or washing procedures that are currently being utilized at the Big Bend Station.

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, your response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.
2. Your Title V application requested that a petcoke/coal blend be burned in Steam Generator Units No. 1 and No.2. Approval to burn this fuel must be obtained through preconstruction review (i.e., applying for and receiving an air construction permit). Subsequently, the Title V permit application or permit revision application can be submitted.

The Department must receive a response from you (the applicant) within 90 days of receipt of this letter, unless you request additional time as described in Rule 62-213.420 (1)(b)6., F.A.C. Failure to submit corrected or supplementary information within 90 days, or such additional time as requested and granted, shall render the application incomplete.

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or me at (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

Sincerely,

Mr. Stanley Martin
January 1997
Page 14

John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/clp

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD
Thomas W. Reese, Esq.

-DRAFT-

CERTIFIED MAIL - Return Receipt Requested

January 1997

Mr. Stanley Martin
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

Scott
For your
review.
- Cindy 1/23

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. Although the application states that a petcoke/coal blend is burned in Steam Generator Units No. 1 and No. 2, the firing of petcoke/coal blend fuel is not addressed in current permits for these units. How long has Tampa Electric Company (TEC) been firing a petcoke/coal blend fuel in each unit, and what has been the maximum annual usage in each unit?
2. On what date did TEC first fire the petcoke/coal blend fuel in Unit No. 4? In Unit No. 3?
3. Specific Condition No. 6 of permit PSD-FL-040 requires post-construction continuous ambient monitoring of sulfuric dioxide emissions until determined by the Administrator (or his/her representative) that the effects of the modification on ambient air quality have been quantified. Has the Administrator (or his/her representative) made this determination yet?
4. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on

Cindy,

Re: TEC B.B.

You may want to preface

question #73. like #75. if needed-

ie. " Based on comments received from
EPCHC ...

73. ... Molten sulfur is used to generate
SO₃

75. ... a 1994 inspection find ...

Mr. Stanley Martin

January 1997

Page 2

average fuel heat content of 11,000 Btu/lb.” Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.

5. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. How long has TEC been using No. 2 fuel oil for start-up in each unit, and what has been the maximum annual usage of No. 2 fuel oil in each unit? Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

6. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) How long has TEC been using used oil to supplement the solid fuel in each unit? b) Is this “on-spec” used oil? c) What has been the maximum annual usage of used oil in each unit? Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions. d) What is the HAPs removal efficiency of each ESP during startup? e) Were the amounts of HAP emissions generated from the burning of used oil considered and included when the potential HAP emissions were identified for the steam generator units and total facility? f) Is the used oil received from only one source? g) What reasonable assurance can be given that the used oil is analyzed to the extent that no major amounts of HAPs will be emitted from the facility, other than those listed in the application? h) How are NO_x emissions affected by the firing of used oil?

7. Although the application states that solid fuels may be supplemented with up to 50 gallons per minute of non-hazardous boiler chemical cleaning waste, the use of cleaning waste is not addressed in current operation permits for these units. a) How long has TEC been using boiler chemical cleaning waste to “supplement” the solid fuel in each unit? What is the heat input value (MMBtu/gallon) of the waste? b) What is the maximum number of gallons burned in each unit on an annual basis? Please submit the Segment (Process/Fuel) Information for boiler chemical cleaning waste for these emission units as required by DEP Form No. 62-210.900(1)-Instructions. c) Assuming it is a batch process, how many batches of boiler cleaning chemical are used to clean a boiler during the cleaning process and how many gallons are in a batch? d) After passing through the boiler, is the hazardous content of the first-pass batch of cleaning solution less than 50 ppm? e) Were the amounts of HAP emissions generated from the burning of the waste considered and included when the potential HAP emissions were identified for the steam generator units and total facility?

8. a) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? b) Is the petcoke received from only one source? c) What reasonable assurance can be given that the petcoke is analyzed to the extent that no major amounts of HAPs will be emitted from the facility, other than those listed in the application?

15. Please specify whether compliance with the nitrogen oxides (NO_x) emissions limits for Steam Generator Units No. 3 and No. 4 shall be determined by measuring the NO_x emitted from each individual unit or by measuring the emissions from the common stacks.

16. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the combustion sources must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1- 4: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

17. During an EPCHC inspection performed on September 16, 1996, significant fugitive emissions were observed coming from the Steam Generator Unit No. 2 furnace. Please explain what actions have been, or will be, taken to correct this problem. Please address the control of fugitive emissions in the maintenance plan for each of the four steam generators.

18. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption?

19. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPs). By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption? If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.}

20. a) By not listing manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of manganese compounds per year? What is the basis for this assumption?
b) If the facility does not exceed this major source threshold for manganese compounds, why are the manganese compounds emissions for Steam Generator Unit No. 3 identified in the emissions unit Pollutant Information section?
c) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much manganese compounds as it does lead. Why is manganese only identified as being emitted from Steam Generator No. 3 and not Units 1, 2, or 4?

21. a) By not listing arsenic compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of arsenic compounds per year? What is the basis for this assumption?

b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds as it does lead. Why is arsenic not identified as a pollutant for the facility and each of the steam generator units?

22. a) By not listing chromium compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of chromium compounds per year? What is the basis for this assumption?

b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit twice as much chromium compounds as it does lead. Why is chromium not identified as a pollutant for the facility and each of the steam generator units?

23. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units?

24. The following hazardous air pollutants are listed in the application as being emitted from:

Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;

Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;

Steam Generator Unit No. 4 - Pb, HCl, and HF;

Combustion Turbine No. 1 - HCl ;

Combustion Turbine No. 2 - HCl, HF, and Ni;

Combustion Turbine No. 3 - HCl, and Mn.

a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?

b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?

c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn when Combustion Turbines No. 1 and No. 2 do not?

25. Please explain why, and in what quantities, TEC is currently reinjecting fly ash to the flue gases, and quantify the effect on emissions. When did TEC begin reinjecting fly ash to the flue gases?

26. a) Please explain why, and in what quantities, TEC is currently adding ammonia to the flue gas from Unit No. 4, and SO₃ to the flue gases from Units No. 1-3, and quantify the effect on emissions. When did TEC begin adding ammonia and SO₃ to the flue gases?

27. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

28. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6

Mr. Stanley Martin

January 1997

Page 6

lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please explain this discrepancy.

29. The maximum annual rate of No. 2 distillate fuel oil burned in each of the three combustion turbines (as submitted in the application), divided by the maximum hourly burning rate for each of the three turbines (as submitted in the application), indicates that each turbine operates 8760 hours per year. However, the construction permits for the turbines limit the hours of operation to 10 hrs/day, 365 days a year, which equates to 3650 hours per year. Please explain this discrepancy.

30. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

31. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please submit this section if it is applicable.

32. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

33. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

34. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

35. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid

fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073. Please certify that the coal yard is in compliance pursuant to this condition of certification and provide the required control device information or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

36. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. Are, in fact, all of the conveyors and transfer points enclosed? Are there any vents or stacks associated with the enclosures? Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? Is conveyor belt CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

37. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

38. The modified Conditions of Certification limit the maximum annual transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. Is TEC actually complying with the more stringent transloading limit of 4000 tons per year? If TEC does not want this more stringent annual limit included in the Title V permit, please contact Mr. Buck Oven in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.

39. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. This information is not on file. Please submit these missing 1994 and 1995 annual process rates. Please provide the required process rate information for each transloading source/emissions point and certify that the combined total amount of transloading of solid fuel at each transloading source/emission point is in compliance pursuant to the conditions of certification or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

40. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

41. How many blending bins are there? How are the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?

Mr. Stanley Martin

January 1997

Page 8

42. Where in the process is the coal sampled for analysis? Where in the process is the petroleum coke/coal blend sampled for analysis? What is the frequency of sampling and analysis?

43. Please explain why more recent fuel analyses for the coal/petroleum coke blend fired in Steam Generator Unit No. 4 were not submitted with the application. Please explain why the fuel analyses parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.

44. In the application, Table A-1 states that 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants, only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.

45. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?

46. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to the coal handling equipment. Based on the process rate table, and a process rate of 4000 tons/hour, the allowable particulate matter emission rate for the solid fuel handling equipment is 285.8 tons/year.

47. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate "Transloading" storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time?

48. In the application, DOCUMENT II.D.3.D., "FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD", shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process?

49. Application DOCUMENT II.D.3.F., "FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS", shows emission points (FH-050 and FH-051) where the crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

50. a) Application DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two

baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? What are the collection ranges of each of the baghouses? For instance, is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo? b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? What are the collection ranges of each of the baghouses? For instance, is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

51. Application DOCUMENT II.D.3.J., "LIMESTONE HANDLING PROCESS FLOW DIAGRAM", shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

52. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

53. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

54. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several emission units with the appropriate application sections completed. When creating emission units consider operating modes. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is? Here are some suggested emission units with corresponding SCCs:

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105
Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

55. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

56. The exit grain loading estimates are based on the high moisture content of the limestone. What is the moisture content? What is the basis of the estimate of an exit grain loading of 0.002 gr/dscf for limestone of this moisture content? Please provide additional information to document the

source of this emission factor. Is this factor based on stack testing, vendor's guarantee, or some other data?

57. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates would be 0.58 lb/hr and 0.42 tpy. Please explain this discrepancy.

58. Is it possible for a limestone railcar to unload while a limestone truck is unloading?

59. What are the estimated annual fugitive emissions from the limestone truck traffic?

Fly Ash Handling and Storage Sources

60. The application requests, and the current permit reflects, an allowable emission limitation of 22.62 tons/year based on a baghouse emission factor of 0.03 gr/dscf. The application states that the 0.03 gr/dscf factor is "Typical baghouse exit loading: ECT, 1995." Please provide additional information to document the source of this emission factor. Is this factor based on stack testing, vendor's guarantee, or some other data?

61. In the application, DOCUMENT II.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", shows a "FUTURE" connection between Silo #1 and Silo #2. Please explain.

62. Does Silo #2 handle any wet (pug mill) transfer fly ash?

63. How is the fly ash, dry and wet, transferred to the silos? What is the maximum loading rate to Silo #2? Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers?

64. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT II.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from offsite actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one onsite fly ash silo to another?

65. What are the estimated annual fugitive emissions from the fly ash truck traffic?

Gypsum Handling and Storage Emission Sources

66. In the application, DOCUMENT II.D.2.A., "BIG BEND STATIONARY EMISSION SOURCE IDENTIFICATION KEY SHEET", describes empty trucks (emission points GH-006 and GH-017 as going "to Off-Site". Is this correct, or would it be more accurate to say that the empty trucks are coming "from Off-Site"?

Mr. Stanley Martin

January 1997

Page 11

67. What is the minimum moisture content of the gypsum that is being loaded onto the trucks in the North Stackout Area? In the Log Term Storage Area?

68. Where is the actual sludge dewatering performed? It does not appear to be identified on any of the figures included in the application.

Slag and Bottom Ash Handling

69. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded?

Fuel Oil Storage and Handling

70. Is all fuel oil brought into the facility by barge and then pumped to the fuel oil storage tanks? What is the total number of fuel oil storage tanks?

71. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates.(STR-001 and STR-002 No. 2 only per Table A-1.)

72. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

73. The Used Oil Analysis submitted in the application lists the "Sample Collector" as "GANNON". Was Gannon actually the name of the person who collected the sample, or was this sample collected at the TEC Gannon facility?

Sulfur Storage and Handling

74. Please explain why this equipment was never permitted. You must submit the required after-the-fact construction permit application information for this equipment and submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

Abrasive Blast Media Storage

75. What type of abrasive blast media is used? Where does the blasting occur? Please explain why this emission unit was never permitted.

Ship Repair Facility

76. On June 6, 1994, during an EPCHC inspection, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this application information.

Mr. Stanley Martin

January 1997

Page 12

List of Proposed Exempt Activities

77. Please review the Division guidance memo DARM-PER/V-15, "Trivial List of Activities at a Title V Facility" and revise the submitted "List of Proposed Exempt Activities" accordingly. Previous Department consensus is not applicable.

78. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

79. Do the storage tanks listed emit VOCs or HAPs?

80. Do the vehicle refueling operations dispense more than 20,000 gallons/month of gasoline? If so, Stage I vapor control applies.

81. Which belt conveyors are being referred to in this list?

Miscellaneous

82. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling procedures that are currently being utilized at the Big Bend Station.

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, your response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.

The Department must receive a response from you (the applicant) within 90 days of receipt of this letter, unless you request additional time as described in Rule 62-213.420 (1)(b)6., F.A.C. Failure to submit corrected or supplementary information within 90 days, or such additional time as requested and granted, shall render the application incomplete.

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or me at (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

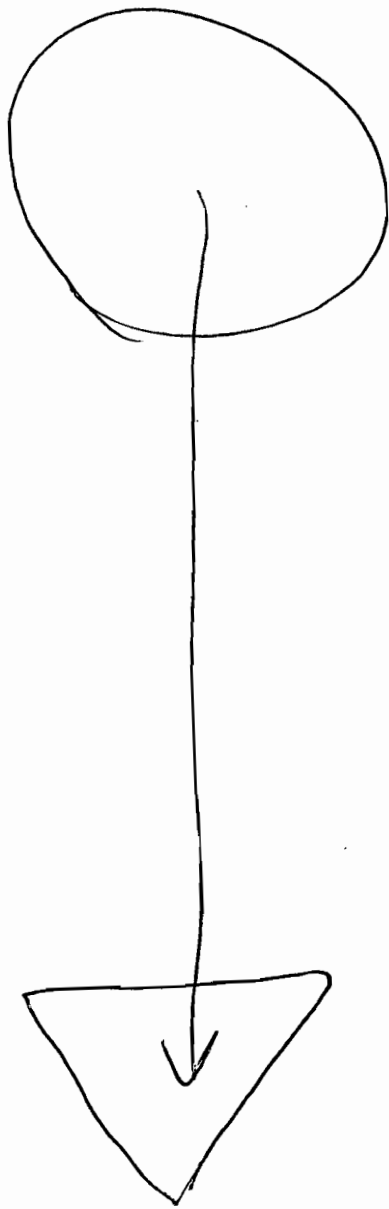
Sincerely,

John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/clp

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD



CERTIFIED MAIL - Return Receipt Requested

January 1997

Mr. Stanley Martin
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. Although the application states that a petcoke/coal blend is burned in Steam Generator Units No. 1 and No. 2, the firing of petcoke/coal blend fuel is not addressed in current permits for these units. How long has Tampa Electric Company (TEC) been firing a petcoke/coal blend fuel in each unit, and what has been the maximum annual usage in each unit?

2. On what date did TEC first fire the petcoke/coal blend fuel in Unit No. 4? In Unit No. 3?

3. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined?

4. For Steam Generator Units Nos. 1-4, please explain why the information for the coal fuel and petcoke/coal blend fuel was combined into "solid" fuel and submitted on one Segment (Process/Fuel) Information form, instead of submitting a separate Segment (Process/Fuel) Information form for each type of fuel as required by DEP Form No. 62-210.900(1)-Instructions.

SC#6 OF P50-FL-040 requires post-construction and during ambient monitoring of visible smoke emissions until determined to be adequate
modifications in ambient air quality have been granted by TEC that effects of monitoring ambient air quality of SO2 did the Admin. determine that the effects had been granted by TEC is there?
Why is this lower than the mean minimum heat content shown in the coal analysis that determines?
solid and liquid
4. Why

5. a) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? b) Is the petcoke received from only one source? What reasonable assurance can be given that the petcoke is analyzed to the extent that no major amounts of HAPs will be emitted from the facility, other than those listed in the application?

6. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. How long has TEC been using No. 2 fuel oil for start-up in each unit, and what has been the maximum annual usage of No. 2 fuel oil in each unit? Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

7. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) How long has TEC been using used oil to supplement the solid fuel in each unit? b) Is this "on-spec" used oil? c) What has been the maximum annual usage of used oil in each unit? Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions. d) What is the HAPs removal efficiency of each ESP during startup? e) Were the amounts of HAP emissions generated from the burning of used oil considered when the potential HAP emissions were identified for the steam generator units and total facility? f) How are NO_x emissions affected by the firing of used oil?

8. Although the application states that solid fuels may be supplemented with up to 50 gallons per minute of non-hazardous boiler chemical cleaning waste, the use of cleaning waste is not addressed in current operation permits for these units. a) How long has TEC been using boiler chemical cleaning waste to "supplement" the solid fuel in each unit? What is the heat input value (MMBtu/gallon) of the waste? b) What is the maximum number of gallons burned in each unit on an annual basis? c) Assuming it is a batch process, how many batches of boiler cleaning chemical are used to clean a boiler during the cleaning process and how many gallons are in a batch? d) After passing through the boiler, is the hazardous content of the first-pass batch of cleaning solution less than 50 ppm? e) Does the combustion of the total waste cause, in any unit, an emission of any additional single hazardous air pollutant (which the entire facility emits 10 tons or more of per year) in the amount of 1000 pounds or more per year? If so, identify the hazardous air pollutant(s).

9. Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Since the application includes the burning of used oil and boiler chemical cleaning waste, please provide assurance that the SO₂ limit will not be exceeded while burning them. Is TEC requesting sulfur limits?

10. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

above?

or and explain, ~~fuel pollutant~~ specify which fuel combination emits the most which fuel that is

11. Please explain, in more detail, how compliance with each of the sulfur dioxide limitations is currently determined. In particular, in the nonintegrated mode, ^{where} are the SO₂ emissions from Steam Generator Unit No. 3 ~~determined~~ so that they may be added to the emissions of Units No. 1 and No. 2? Is Unit No. 4 shut down while unit No. 3 is being tested for SO₂ emissions?

12. For Steam Generator Units No. 3 and No. 4, is particulate stack-testing conducted for each unit in the integrated mode as well as the non-integrated mode? In the integrated mode, please specify whether compliance shall be determined by measuring the particulate matter emitted from each individual unit or by measuring the emissions from the common stacks.

13. Please specify whether compliance with the nitrogen oxides (NO_x) emissions limits for Steam Generator Units No. 3 and No. 4 shall be determined by measuring the NO_x emitted from each individual unit or by measuring the emissions from the common stacks.

14. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the combustion sources must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1- 4: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

15. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption? If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? *Actual emissions for Note: In the April 1995, TEC reported annual lead emissions of 32.5 tons for the facility.*

16. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis for this assumption?

17. a) By not listing manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of manganese compounds per year? What is the basis for this assumption?

b) If the facility does not exceed this major source threshold for manganese compounds, why are the manganese compounds emissions for Steam Generator Unit No. 3 identified in the emissions unit Pollutant Information section? *c) Based on emission factors from AP-42 Table 1.1-15 (1/95), the facility emits or has the potential to emit more than 10 tons per year of manganese compounds and each of the four steam generator units emits more than 1000 pounds per year. Why is manganese only identified as being emitted from Steam Generator No. 3? and not units 1, 2 or 4?*

18. a) By not listing arsenic compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of arsenic compounds per year? What is the basis for this assumption? b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit ~~more than 10 tons per year of arsenic compounds and each of the four steam generator units emits more than 1000 pounds per year.~~ ^{as much arsenic as lead from} Why is arsenic not identified as a pollutant for the facility and each of the steam generator units?

19. a) By not listing chromium compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of chromium compounds per year? What is the basis for this assumption? b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit ~~more than 10 tons per year of chromium compounds and each of the four steam generator units emits more than 1000 pounds per year.~~ ^{twice as much as lead from} Why is chromium not identified as a pollutant for the facility and each of the steam generator units?

20. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit ~~more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year.~~ ^{twice as much as lead from} Why are HAPS not identified as a pollutant for the facility and each of the steam generator units?

21. The following hazardous air pollutants are listed in the application as being emitted from:

- Steam Generator Unit No. 4 - Pb, HCl, ~~Fl~~, and HF;
- Steam Generator Unit No. 3 - Pb, HCl, ~~Fl~~, HF, Mn, Ni, and Se;
- Steam Generator Units No. 1 and 2 - Pb, HCl, ~~Fl~~, HF, Ni, and Se;
- Combustion Turbine No. 1 - HCl and ~~Fl~~;
- Combustion Turbine No. 2 - HCl, ~~Fl~~, HF and Ni.
- Combustion Turbine No. 3 - HCl, ~~Fl~~, and Mn

a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do? ~~(Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit more than 10 tons per year of nickel compounds and each of the four steam generator units has the potential to emit more than 1000 pounds per year of nickel.)~~

b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?

c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn when Combustion Turbines No. 1 and No. 2 do not?

22. Please explain TEC's current process of adding ammonia and SO₃ to the flue gases and quantify the effect on emissions. How is the ammonia stored?

23. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

24. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the ~~X~~ Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please explain this discrepancy.

25. ~~The maximum hourly rate of No. 2 distillate fuel oil burned in Combustion Turbine No. 1 is listed as 1.2357 thousand gallons per hour and the maximum annual burning rate is listed as 10,825 thousand gallons per year, which would indicate that the turbine operates 8760 hours per year. However, construction permit AC-29-2209 limits the hours of operation of Combustion Turbine No. 1 to 10 hrs/day, 365 days a year which equates to 3650 hours per year. Please explain this discrepancy.~~ *(as listed in the application 2/3)*

26. ~~The maximum hourly rate of No. 2 distillate fuel oil burned in Combustion Turbine No. 2 is listed as 6.00 thousand gallons per hour and the maximum annual burning rate is listed as 52,560 thousand gallons per year, which would indicate that the turbine operates 8760 hours per year. However, construction permit AC-29-2210 limits the hours of operation of Combustion Turbine No. 2 to 10 hrs/day, 365 days a year which equates to 3650 hours per year. Please explain this discrepancy.~~

27. In the application, Table A-1, "Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station," states that 40 CFR 76.5(g) applies to Steam Generator No. 4 and "Beginning January 1, 1995, NO_x emissions shall not exceed 0.45 lb/MMBtu on an annual average basis for tangentially fired boilers." However, 40 CFR 75.6(g) actually states "Beginning January 1, 2000, the owner or operator of a Group I, Phase II coal-fired utility unit with a tangentially fired boiler or a wall-fired boiler shall be subject to the emission limitations in paragraph (a) of this section." Is this a correct rule cite and/or statement of applicability? Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A?

28. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3 and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please submit this section if it is applicable.

Fly Ash Handling and Storage Sources

1. The application requests, and the current permit reflects, an allowable emission limitation of 22.62 tons/year based on a baghouse emission factor of 0.03 gr/dscf. The application states that the 0.03 gr/dscf factor is "Typical baghouse exit loading: ECT, 1995." Please provide additional information to document the source of this emission factor. Is this factor based on stack testing, vendor's guarantee, or some other data?

Solid Fuel Handling

1. Please explain why the information for the coal fuel and the pet coke/coal blend fuel was combined into "solid" fuel and submitted on message (Process/Fuel) information form instead of submitting a separate segment (Process/Fuel) information for each fuel as required by Del Form No. 62-210.9006.

1. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073. Please certify that the coal yard is in compliance pursuant to this condition of certification and provide the required control device information or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

2. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. Are, in fact, all of the conveyors and transfer points enclosed? Are there any vents or stacks associated with the enclosures? Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt?

3. Which solid fuel, coal or petroleum coke/coal blend, will emit the most particulate matter when handled? Please submit documentation to support your conclusion.
*Conveyor CB-A1
is barge CB-A1 stationary? stationary, i.e. does the barge line-up with CB-A1 or
is CB-A1 moved to line up with the barge?*

4. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, ^{blending,} and shipping for the TEC Polk Power Generating Station? Is the quantity of solid fuel processed for Polk Power included in the solid fuel handling maximum process rate of 4000 tons/hour stated in the application? *Stevedoring*

5. The modified Conditions of Certification limit the maximum annual transloading of solid fuel to 1,428,030 tons and require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. This information is not on file. Please submit these missing 1994 and 1995 annual process rates. Please provide the required process rate information for each transloading source/emissions point and certify that the combined total amount of transloading of solid fuel at each transloading source/emission point is in compliance pursuant to this condition of certification or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

6. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

7. Application Table A-1 states that 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants, only applies to emission units CH-048 through CH-052 (CH = FH in

Document II.D.2.A. "Big Bend Station Emission Source Identification Key Sheet" lists a source ID FH-067 as Transloading Storage Pile to Loadout Conveyor. Is there actually a "Loadout" Storage Pile or is this merely a reference to the North, South, or Middle Storage Pile which were the source of the fuel

Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.

8. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year? *(risked on p. 7)*

9. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to the coal handling equipment. Based on the process rate table, and a process rate of 4000 tons/hour, the allowable particulate matter emission rate for the solid fuel handling equipment is 285.8 tons/year.

Fuel Oil Storage and Handling

1. Is all fuel oil brought into the facility by barge and then pumped to the fuel oil storage tanks?

What is the total number of fuel oil storage tanks?

2. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct? *Based on Document II.D.2.K. "STORAGE TANK EMISSION SOURCES" there appear to be a total of 9 storage tanks. Are these all for storage of No. 2 fuel oil. Please list the Capacity and Content of each storage tank.*

Sulfur Storage and Handling

1. Please explain why this equipment was never permitted. You must submit the required after-the-fact construction permit application information for this equipment and submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C. *+ the E.P.H.C.*

Abrasive Blast Media Storage

1. Please explain why this emission unit was never permitted.

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed). *to this office*

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, your response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within *ninety 90* (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6.,

F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The Title V application included a request to change the method of determining compliance with the particulate and SO₂ emission limits for Steam Generator Nos. 1, 2 Pursuant to Rule 62-297.620, F.A.C., approval of alternate test procedures is necessary before incorporating them into any air operation permit. Requests for alternate procedures should be addressed to Mr. Mike Harley in the Emissions Monitoring Section at Mail Station 5510 at the letterhead address.

2. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.

The Department must receive a response from you (the applicant) within 90 days of receipt of this letter, unless you request additional time as described in Rule 62-213.420 (1)(b)6., F.A.C. Failure to submit corrected or supplementary information within 90 days, or such additional time as requested and granted, shall render the application incomplete.

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or me at (904)488-1344.

Sincerely,

John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/clp

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD

Tom Reese Esq.

TAMPA ELECTRIC CO. REQUESTED COMPLIANCE METHOD CHANGES FOR BIG BEND STATION

EMISSION UNIT	SO2 LIMIT	SO2 COMPLIANCE METHOD	
		CURRENT	PROPOSED
Unit 1 or 2 or 3(nonintegrated mode)	6.5 lb/mmbtu	Daily composite fuel sampling & analysis ASP(?) w/annual stack test	Weekly composite fuel sampling and fuel analysis or continuous monitoring per FDEP Rule 62-296.405(1)(f)1.b. Deletion of annual stack test requirement.
Units 1 + 2 + 3(nonintegrated mode)	25 tons/hour	Daily composite fuel sampling & analysis ASP(?) w/annual stack test	ASP(?) w/out annual stack test
Units 1 + 2 + 3(nonintegrated mode)	31.5 tons/hour	Daily composite fuel sampling & analysis ASP(?) w/annual stack test	ASP(?) w/out annual stack test

BY:

Notification Screen Example

State	<u>New Mexico</u>	Region	<u>6</u>
Grantee	<u>City of Albuquerque</u>	Last Updated	<u>12/25/96</u>

Standard--Aerospace Manufacturing and Rework NESHAP

=====
===== Page 2 of 2 =====
=====

----- Major Sources -----		----- Area Sources -----	
# Notifications Received	<u>2</u>	# Notifications Received	<u>12</u>
# Compliance Cert. Received	<u>1</u>	# Compliance Cert. Received	<u>11</u>
# Extensions Granted	<u>0</u>	# Extensions Granted	<u>1</u>
# Known non-compliance	<u>4</u>	# Known non-compliance	<u>0</u>

Were substitute rules used? Yes

Comments-- Local toxics rule NM43 controls equivalent to MACT.
3 sources did not provide notification letters.

1-13-97 10:54AM : AIR PROGRAMS BRANCH-

904 922 6979: # 3 / 3
F.1/13

$$\frac{1,000,000}{13,413}$$

$$\frac{.01 \times 66 \text{ lbs}}{1 \text{ lb coal}} \left(\frac{2 \text{ lbs } \text{SO}_2}{1 \text{ lb S}} \right) = 2.48 \text{ lb/MMBtu}$$
$$\frac{13,413 \text{ Btu}}{1 \text{ lb coal}}$$

$$\text{SO}_2 \frac{64}{32}$$

COMMISSION

DOTTIE BERGER
JOE CHILLURA
CHRIS HART
JIM NORMAN
JAN PLATT
THOMAS SCOTT
ED TURANCHIK

EXECUTIVE DIRECTOR
ROGER P. STEWART



ADMINISTRATIVE OFFICES, LEGAL &
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1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
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FAX (813) 272-5157

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TELEPHONE (813) 272-5530

WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788

WETLANDS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

FAX TRANSMITTAL SHEET

DATE: 7/30/97

TO: STEVE WELSH, DARM

FAX PHONE: _____ VOICE PHONE: _____

TOTAL NUMBER OF PAGES INCLUDING THIS COVER PAGE: 4

EPC FAX TRANSMISSION LINE: (813) 272-5605
FOR RETRANSMISSION OR ANY FAX PROBLEMS, CALL: (813) 272-5530

FROM: CARLOS GONZALEZ
(CIRCLE APPLICABLE SECTION BELOW)

AIR DIVISION

-ENFORCEMENT

-ENGINEERING

-SUPPORT OPERATIONS

SPECIAL INSTRUCTIONS: TECO Hooker's Point Draft AV permit
revisions as discussed earlier this Am.

COMMISSION

DOTIE BERGER
 JOE CHILURA
 CHRIS HART
 JIM NORMAN
 JAN PLATT
 THOMAS SCOTT
 ED TURANCHIK

EXECUTIVE DIRECTOR

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WETLANDS MANAGEMENT DIVISION
 TELEPHONE (813) 272-7104

MEMORANDUM

DATE: July 30, 1997

TO: Steve Welsh *Stw*

THRU: Scott Sheplak, P.E.
Cindy Phillips, P.E.

FROM: *RR* Richard C. Kirby, IV, P.E.

SUBJECT: TEC - Hooker's Point Draft Title V Permit

Attached are concerns and comments provided by EPC's Compliance Chief. The comments deal mostly with testing requirements during sootblowing v. non-sootblowing conditions. I am in agreement with Mr. Woodard's comments. If testing during sootblowing only is conducted, which demonstrates compliance with sootblowing standards but not with non-sootblowing standards, the permit shield may prevent legitimate enforcement actions.

km



COMMISSION

DOTTIE BERGER
JOE CHILLURA
CHRIS HART
JIM NORMAN
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ED TURANCHIK

EXECUTIVE DIRECTOR

ROGER P. STEWART



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WETLANDS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

MEMORANDUM

DATE: July 28, 1997

TO: Rick Kirby, P.E.

FROM: Sterlin Woodard *SW*

SUBJECT: TECO Hooker's Point Draft Title V Permit Testing Conditions

In response to my conversations with Carlos regarding TECO's request to use a PM test under sootblowing conditions to demonstrate compliance with the non-sootblowing standard, I offer the following comments:

1. Since all six units' maximum heat input is > 250 MMBTU/hr., they are all subject to the non-sootblowing PM and VE standards of 62-296.405(1) and 62-296.702(2).
2. The PM standard of 62-296.405(1) is 0.1 lb/MMBTU heat input and the VE standard is 20% opacity. The RACT standard listed in 62-296.702(2) is also 20% opacity, but the PM standard refers back to the 0.1 lb/MMBTU standard of 62-296.405.
3. 62-210.700(3) of the excess emissions rule has a 60% opacity limit for up to 3 hours and a PM limit of 0.3 lb/MMBTU heat input during sootblowing. In addition, the VE standard allows up to four 6-minute periods in excess of 60% opacity during the three hours of excess emissions (sootblowing).
4. The applicable tests methods listed in both 62-296.405(1)(e) and 62-296.702(3) are either DEP Method 9 or EPA Method 9 for opacity, and EPA Methods 5, 5B, 5F or 17 listed 62-297.
5. 62-297(7)(a)4. requires annual non-sootblowing testing for PM and visible emissions, while 62-297(7)(a)2. requires an annual sootblowing test for PM.

Rick Kirby
July 28, 1997
Memorandum
Page 2

6. Even though the State and County have allowed compliance tests conducted under sootblowing conditions that were \leq 0.1 lb/MMBTU to demonstrate compliance with the 0.1 lb/MMBTU non-sootblowing standard in the past, I do not believe we should continue to do so. For example. If a PM test conducted under sootblowing conditions exceeded the 0.1 lb/MMBTU standard but was less than 0.3 lb/MMBTU, we could not take enforcement. The 0.1 lb/MMBTU standard does not apply during periods of excess emissions (sootblowing).

7. A sootblowing test that is \leq 0.1 lb/MMBTU does provide reasonable assurance that the 0.3 lb/MMBTU and 0.1 lb/MMBTU standards are being met. However, failure to comply with the 0.1 lb/MMBTU standard and our inability to take enforcement is a violation of 62-4.160(1), which states that the conditions in the permit are enforceable pursuant to Section 403.141, 403.727, or 603.859 through 403.861, Florida Statutes. Our failure to enforce the 0.1 lb/MMBTU standard under these conditions also violates our enforcement agreement with the EPA.

8. The only way the State and County could enforce both standards is to include separate testing requirements in the permit. One under sootblowing, and the other under non-sootblowing conditions.

9. In addition, I would like to suggest that the permit also require that sootblowing testing be conducted under "normal" conditions. At many older facilities like Hooker's Point, sootblowing is manual and involves cleaning all of the boiler tubes and the preheater. Usually there are a number of lances or sootblowers that use jets of steam or air to clean the boiler tube surfaces. Manual cleaning cycles are usually every 24 hours, while automatic cleaning cycles occur every two to four hours. Because the amount of particulate matter emitted is dependent upon the number of sootblowers in operation and the duration of the cleaning cycle, the permit should require that the number of sootblowers and the duration of the cleaning cycle be the same as under "normal" or everyday conditions.

bm

cc: Jerry Campbell
Carlos Gonzalez

poll Test | Chg fac/poll | Oper rates | violation | Return | exit
----- Emission Unit Pollutant Test -----

AIRS ID 0570039 OFFICE SWHI SW: HILLSBOROUGH
OWNER TECO NAME BIG BEND STATION
EU ID 001 Description UNIT #1 COAL FIRED BOILER W/RESEARCH-COTRELL ESP

Pollutant PM Particulate Matter - Total Allowable Seq 001
Comp Test Fr ANNUALLY Freq Base Date 30-OCT-87

Test Date 08-NOV-1995 Audit Type 3 TYPE III-STACK TEST REVIEW Result P
Receive Dt 14-DEC-1995 Review Dt 25-JAN-1996 Next Test Dt 21-DEC-1996
Test Point
Test Meth Team

Test Allow 404.000000
Actual 0.077000 Unit 37 POUNDS PER BILLION BTU HEAT INPUT
Permit Allow 404.000000 Unit PH POUNDS/HOUR
% of Test Actual Above/Below Test Allow -99.98
Comment

Enter Test Date
Count: 13 v <Replace>

Date: 1/21/97 4:17:01 PM
From: Larry George TAL
Subject: Re: Permit Application Instructions
To: Cindy Phillips TAL

To answer the second part of your question first: until the form is updated to better mesh with the preconstruction review program, we must rely on the "catch-all" supplemental information requirements (facility #6 and emissions unit #8) to give us what we need. Part of Permitting Simplification Part V is to develop an AC form or set of AC instructions.

Going back to your first question, I cannot find any notes or correspondence that give me a clue as to why the form instructions disagree with the rule. As near as I can tell, the rule reflects our intent; i.e., that the applicant identify (but not necessarily quantify) each pollutant for which the facility is major. Therefore, I recommend that you go with the rule, and I will make note to change the form.

For your information, there is another situation which only affects one facility that I know of. If a facility emits a 112r pollutant (e.g., ammonia) in a major amount, it is subject to Title V as a major source. However, according to our rule (which reflects the White Paper), the applicant does not have to list 112r pollutants in the application. Therefore, you end up with a "mystery" Title V source.

11. What is basis for stating that total F emitted at facility is less than 100 TPY?
12. petake analysis to provide reasonable assurance that no major amounts of additional individual HAPs will be emitted?
13. TEC estimates annual emissions of lead to be 1.6 TPY even though actual emissions in 1995 were reported to be 32.5 tons.
15. SO_3 generated on-site from molten sulfur. < 5000 TPY?
for ESP enhancement (296.41 exempt tons)
- #23 control devices were not installed for coal handling facilities as required by conditions of certification
- #26 What quantities ^{solid fuel} is TEC handling for TEC Polk Power Generation Station.
- #27 PARACT
- #29 Subpart Y only applies to preparation i.e. crushers?
- #31 It doesn't have a stack or vent because control equipment wasn't installed.
- #44 won't say what contents of 9 storage tanks are. just maintain that they are exempt.

Nitrogen Oxides Emission Reduction Program Final Rule for Phase II, Group 1 and Group 2 Boilers

Full text of final rule.

The final rule implements the second stage of the Nitrogen Oxides (NO_x) Reduction Program under title IV of the Clean Air Act Amendments (CAAA) of 1990 by establishing NO_x emission limitations for certain coal-fired utility units and by revising NO_x emission limitations for others.

Benefits of Reducing NO_x

Emissions of nitrogen oxides discharged into the atmosphere from the burning of fossil fuels have significant adverse effects on human health and the environment, contributing substantially to the formation of ozone, acid deposition, eutrophication of water bodies, inhalable fine particles, and visibility degradation. Substantial, additional regional NO_x reductions from current levels are likely to be necessary to address these problems. Electric utilities are a major contributor to NO_x emissions nationwide, and approximately 90 percent of electric utility NO_x comes from coal-fired power plants. The emission limitations established by this rule are some of the most cost-effective means of achieving NO_x reductions. The level of needed reductions will likely be greater than those achievable under the title IV NO_x emission limitations established under today's final rule. The additional reductions from this final rule represent a reasonable step toward achieving necessary NO_x reductions.

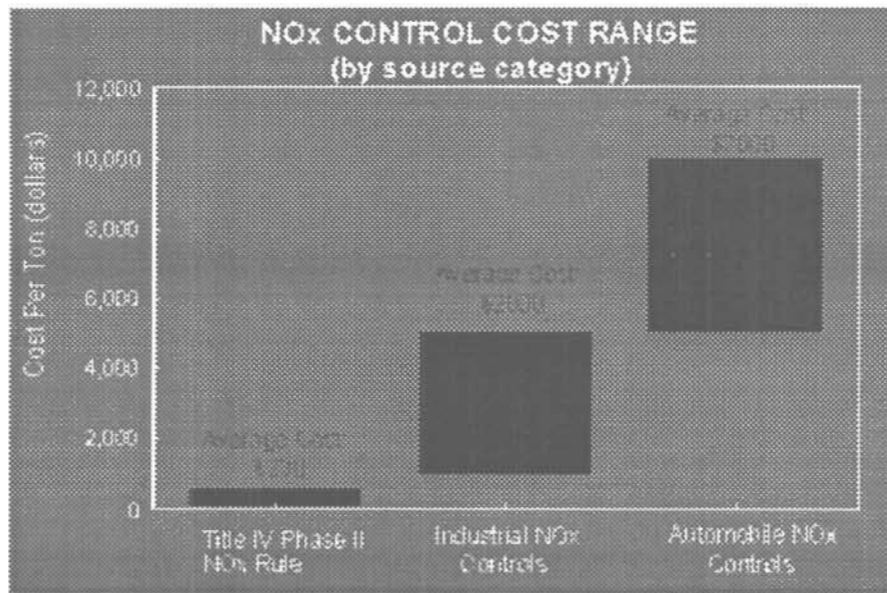
First Stage of the NO_x Reduction Program

Title IV specifies a two-part strategy to reduce emissions from coal-fired electric power plants. The first stage of the program, promulgated April 13, 1995 will reduce annual NO_x emissions in the United States by over 400,000 tons per year between 1996 and 1999 (Phase I), and by approximately 1.17 million tons per year beginning in the year 2000 (Phase II). These reductions are achieved by coal-fired dry bottom wall-fired boilers and tangentially fired boilers (Group 1). The total annual cost of this regulation to the electric utility industry is estimated at \$267 million, resulting in an overall cost-effectiveness of \$227 per ton of NO_x removed.

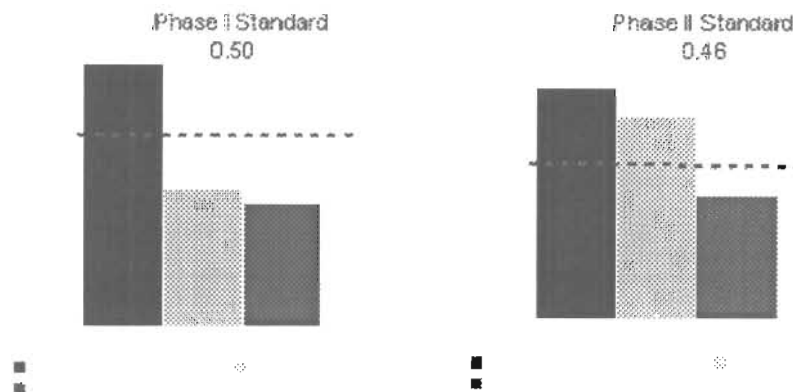
Second Stage of the NO_x Reduction Program

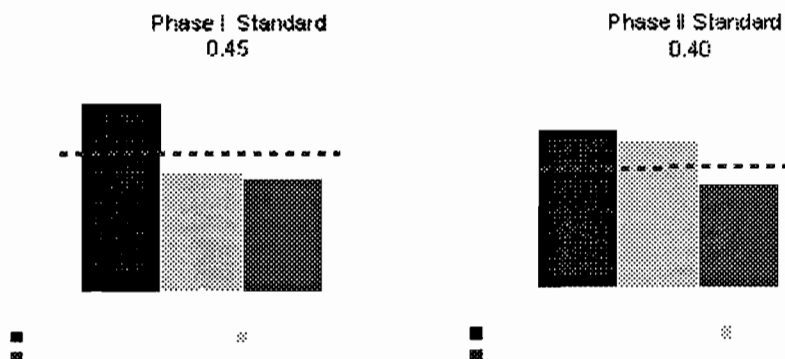
In the second stage of the title IV Program EPA has: (1) determined that more effective low NO_x burner (LNB) technology is available to establish more stringent standards for Phase II, Group 1 boilers than those established for Phase I; and (2) established limitations for other boilers known as Group 2 (wet bottom boilers, cyclones, cell burner boilers, and vertically fired boilers), based on NO_x control technologies that are comparable in cost to LNBS.

The final rule sets lower Group 1 emission limits and establishes emission limits for several other types of coal-fired boilers (Group 2) in Phase II. The annual cost of these additional reductions will be approximately \$200 million, at an average cost-effectiveness of \$229 per ton of NO_x removed. By the year 2000, the Phase II NO_x rule will achieve an additional reduction of 890,000 tons of NO_x annually. Overall, as illustrated in the following figure, this rule achieves significant NO_x reductions, very cost-effectively.



EPA has concluded that currently available data on the effectiveness of Group 1 LNB technology supports revision of the annual limitations for both dry bottom wall-fired boilers and tangentially fired boilers under Phase II of the Acid Rain NOx Emission Reduction Program. Projections developed by applying CEM-based estimated percent reductions to boiler-specific uncontrolled emission rate data for the Phase II population indicate that approximately 85-90% of both dry bottom wall-fired boilers and tangentially fired boilers could individually meet the revised standards. The following figures show the average baseline and controlled NOx rates of Phase I, Group 1 boilers and the average baseline and expected controlled NOx rates of Phase II, Group 1 boilers, and illustrate the reasonableness of this modest revision to the existing standards.





To characterize costs associated with controlling NOx from Group 2 boilers, NOx control technologies were modeled on generic representative Group 2 boilers using data from full-scale demonstrations. The results of this modeling provided cost-effectiveness distributions on each pertinent Group 2 boiler type/NOx control technology combination. These distributions were subsequently compared to the cost-effectiveness distribution of LNB applications on Group 1 boilers to determine what Group 2 boiler type/NOx control technology combinations could be used to establish NOx emission limits for the various types of Group 2 boilers. Based on these cost-effective NOx control technologies, EPA has projected that approximately 85-90% of the boilers in any Group 2 boiler category could meet their established limit.

Emission Limits for Phase II

The following table presents the boiler types affected by this rule, their population, and the NOx emission limitations:

Boiler Types	Number of Boilers	Phase II Emission Limits
Phase II, Group 1 Boilers		(revised)
dry bottom wall-fired	308	dry bottom wall-fired: 0.46 lb/mmBtu
tangential	299	tangential: 0.40 lb/mmBtu
Group 2 Boilers		(new)
cell burners	36	cell burners: 0.68 lb/mmBtu
cyclones > 155 MW	55	cyclones: 0.86 lb/mmBtu
wet bottoms > 65 MW	26	wet bottoms: 0.84 lb/mmBtu
vertically fired	28	verticals: 0.80 lb/mmBtu

Compliance and Deadlines

A utility can choose to comply with the rule in one of three ways: (1) meet the standard annual emission limitations, (2) average the emissions rates of two or more boilers, which allows utilities to over-control at units where it is technically easier and less expensive to control emissions, or (3) if a utility cannot meet the standard emission limit, it can apply for a less stringent alternative emission limit (AEL) if it uses the appropriate NOx emission control technology on which the applicable emission limit is based.

EPA's determination of an AEL will be based on evidence that control equipment was properly designed, installed, and operated during a demonstration period.

Phase I affected units are required to meet the applicable limits by 1996, Phase II affected units are required to meet the applicable limits by 2000. The final rule relies upon target performance standards, but also allows emissions averaging and the use of alternative, higher emissions limits where meeting the applicable limits is infeasible. Utilities choose the method of compliance which best suits their needs. This approach provides flexibility, promotes technology development and competition, and provides opportunities to reduce the cost of control.

Addition of Limited Cap and Trade Option

In order to employ a more flexible emissions trading approach, an option was devised whereby a state (or group of states) could petition EPA to accept an emissions cap and trade program as a substitute for compliance with the Group 2 limits and incremental reductions required of Group 1 boilers made final in this rule. This option is set forth in § 76.16 of the final rule. Under this option, the Administrator retains the authority to provide relief for boilers in a state (or group of states) and subject to a cap and trade program under title I, from emission limitations established in today's final rule. The relief is contingent on the Administrator finding that alternative compliance through the cap and trade program will achieve lower total NOx emissions from the Group 1 and Group 2 boilers in the state (or group of states) than if the new emission limitations remained applicable. Since the Act does not permit the Administrator to relax existing limits, the existing Group 1 limits, established by the April 13, 1995 regulations, will apply to Group 1 boilers covered by any cap and trade program.

This added flexibility should encourage states and utilities involved in the Ozone Transport Assessment Group (OTAG) region, where approximately 87% of the boilers covered by this rule are located, to move forward a regional cap and trade program for NOx reduction. This provision would allow utilities under a cap and trade program to reduce NOx even more cost-effectively than under the current rule. EPA believes that this trading provision provides for coordination of NOx reduction initiatives under titles I and IV, and is consistent with statutory requirements in a way that promotes the goal of achieving necessary NOx reductions in a cost-effective manner.

For information, write to:

U.S. EPA Office of Air and Radiation
Acid Rain Division (6204J)
Washington, DC 20460

If you would like to receive other fact sheets on the Acid Rain Program, call the Acid Rain Hotline at (202) 233-9620 or the EPA Public Information Center (PIC) at (202) 260-2080.



[Return to the Acid Rain Program's Home Page](#)

27. In the application, Table A-1, "Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station" states that 40 CFR 76.5(g) applies to Steam Generator No. 4 and "Beginning January 1, 1995, NO_x emissions shall not exceed 0.45 lb/MMBtu on an annual average basis for tangentially fired boilers." However, 40 CFR 75.6(g) actually states "Beginning January 1, 2000, the owner or operator of a Group I, Phase II coal-fired utility unit with a tangentially fired boiler or a wall-fired boiler shall be subject to the emission limitations in paragraph (a) of this section." Is this a correct rule cite and/or statement of applicability? Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated in the monitoring plan for Unit No. 4), the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

28. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3 and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please submit this section if it is applicable.

29. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

1. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

2. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

3. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through

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COMMISSION

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ED TURANCHIK

EXECUTIVE DIRECTOR

ROGER B STEWART



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WETLANDS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

FAX TRANSMITTAL SHEET

DATE: 9/3/97

TO: Crady Phillips

FAX PHONE: auto VOICE PHONE: 278-1344

TOTAL NUMBER OF PAGES INCLUDING THIS COVER PAGE: 9

EPC FAX TRANSMISSION LINE: (813) 272-5605
FOR RETRANSMISSION OR ANY FAX PROBLEMS, CALL: (813) 272-5530

FROM: Rick Kirby
(CIRCLE APPLICABLE SECTION BELOW)

AIR DIVISION

- ENFORCEMENT
- ENGINEERING
- SUPPORT OPERATIONS

SPECIAL INSTRUCTIONS: _____

Handwritten notes:
9/3/97
m

COMMISSION

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MEMORANDUM

DATE: September 3, 1997

TO: Cindy Phillips

FROM: ^{RK} Richard C. Kirby, IV, P.E. **THRU:** Jerry Campbell, P.E.

SUBJECT: TECO - Big Bend Station Title V Permit

The Environmental Protection Commission of Hillsborough County has reviewed the response from TECO regarding the subject facility. Since the required issue date is rapidly approaching, we understand the Department's reluctance to re-request information which has not been provided. We offer the following points which we request be considered during drafting the permit. We plan to meet with TECO to discuss the SO₂ standard and compliance demonstration. We will get you comments on this issue ASAP.

1. (re #2) TECO has stated that analytical report sheets use the term "coal" for fuel analyses regardless of fuel mix tested. Analytical report sheets should state clearly which solid fuel is analyzed (i.e. Pet Coke/Coal or Coal). We recommend this be required in permit conditions.
2. (re #6) We recommend approval of use of CEMS for SO₂ verification. TECO should not be given an either/or compliance scenario (i.e. CEM or fuel sampling).
3. (re #7) EPC requests that a condition be included in the Title V permit as follows:
 - * Sulfur dioxide emissions shall be limited to 1.1 pounds per million Btu heat input when liquid fuel is burned. [Rule 1-3.63c., Environmental Protection Commission of Hillsborough County Chapter 1-3, Air Pollution]
4. (re #15) Although TECO stated that ammonia addition to the gas stream from Unit 4 prior to FGD is not part of the emission control system, no verification was provided. Ammonia addition may have the dual function of reducing corrosion and the synergistic effect of improving ESP function.



Cindy Phillips
September 3, 1997
Memorandum
Page 2

EPC recommends that TECO be required, through permit conditions, to report, with compliance test reports, ammonia and SO₂ design utilization rates and actual rates.

5. (re #17) TECO has stated that they believe the 124 lb/hr CO limit given in the July 11, 1988 modification to permit PSD-FL-040 is a math error. Even if this is the case, the appropriate way to correct it is through the modification process. The Title V permit should reflect the values in the current PSD permit. CO testing should be required to verify these standards.
6. (re #21) TECO has refused to give any data regarding the handling and storage of petroleum coke in their fuel yard. TECO has stated their intent is to seek approval of several alternate fuels for the facility. Since burning a new fuel is a modification for an emissions unit, then handling and storage is as well. The type and quantity of each fuel approved for the facility should be limited by permit conditions. We will be happy to assist you in determining an appropriate handling rate for pet coke. Any change in the coal or pet coke handling rate or addition of any new fuel should be handled as a modification.
7. (re #22) TECO has calculated particulate matter emissions (PME) from the fuel yard using the AP-42 drop equation. This is the least conservative method of estimating emissions from coal handling. Limits on PME from fuel handling should be as established in previous permits.
8. (re #27) TECO has stated that the fuel yard is not subject to RACT per the exemption in 62-296.700(2)(d); EPC disagrees. The exemption applies to emission units which are unconfined. Most of the emission points within the unit are confined. Also, the Big Bend fuel yard is on the line 5 km from the PM air quality maintenance area, and therefore, the yard should be subject to the rule.
9. (re #36) Since TECO has stated that the limestone storage building is not an emission unit, the permit should state that all openings, doors, windows, etc., shall be kept closed during limestone handling.
10. (re #38 and #39) Since TECO has based emissions on 1460 hours per year but wishes not to be limited by hours, it would be appropriate to put a material (limestone) throughput rate in the permit. At the given hours and hourly rate this equals: (1460 hr/yr x 168 tons/hr) 245,280 TPY

Cindy Phillips
September 3, 1997
Memorandum
Page 3

11. (re #41) Since TECO did not respond as to whether flyash is imported from off site for storage in the silos, and since no approval for this activity was found in existing permits, a condition should be included which precludes importation of flyash generated off site.
12. (re #46 and #47) Since TECO did not provide information regarding the type and amount of blasting abrasives used on site, permit conditions should state that only coal slag be used and limit the amount. Also, TECO states that unconfined abrasives blasting of marine vessels is an unregulated activity. This is not correct. EPC has worked with the ship building and repair facilities in Hillsborough County to come up with conditions and requirements acceptable to all parties. We offer the attached wording for your consideration.
13. If they are conditioning the flue gas of any of the boilers with SO³, the permit will need to address compliance with Rule 62-296.411, F.A.C., for the liquid sulfur handling on the front end. The conditioning is probably a function of the fuel type (pet coke or coal) and the characteristics of the regional coal which they are firing. The issue of when this conditioning started and whether it should have triggered a modification will be handled by our office as a separate issue. Still the permit should require accurate recordkeeping on the amount of sulfur consumed and the SO³ concentration in the condition boiler exhaust.

Thank you for the opportunity to provide input.

bm

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PERMITTEE:
Gulf Marine Repair
Corporation

Permit/Certification No.: AC29-231156
Project: Ship Repair, Grit Blasting,
and Coating Operation

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions. [62-4.160, F.A.C.]
2. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapters 62-209, 62-210, 62-212, 62-272, 62-296 and 62-297, F.A.C., or any other requirements under federal, state, or local law. [Rule 62-210.300, F.A.C.]
3. (Facility)'s facility shall be allowed to operate continuously (i.e., 8760 hrs./yr.).

Coating Operations

4. For any coating applied to a metal surface other than the exterior of a completely assembled marine vessel, except as provided in Specific Condition No. 4, the volatile organic content of the coatings shall not exceed 3.5 pounds per gallon of coating, excluding water. This shall apply to all flat metal plates, miscellaneous metal parts, ship modules, and sections fabricated for the purpose of converting or extending an existing ship. [Rules 62-296.513(2)(a)2. and 3., F.A.C.]
5. For any coating applied to the exterior of a completely assembled marine vessel, the coatings are exempt from any pound per gallon standard. This shall include portions of a used vessel which are removed for convenience and coated separately. [Rule 62-296.513(1)(b)10., F.A.C.]
6. In accordance with the historical usages at the facility, and as requested by the permittee to limit the potential to emit to exempt the facility from Rule 62-212.500, F.A.C., the total volatile organic compound emissions from the coating operations covered under this permit shall not exceed _____ tons per any 12 consecutive month period. [Rule 62-212.300, F.A.C.]
7. Compliance with the emission limitation of Specific Condition No. 4 shall be determined using EPA Method 24 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C. The EPA VOC Data Sheet (Properties of the Coating "As Applied" by the Permittee), designated Appendix A shall be submitted for each coating. The Department may accept, instead of the Method 24, a certification by the coating manufacturer of the composition of the coating if it is supported by actual batch formulation records. The manufacturer's certification must be consistent with EPA's document number 450/3-84-019, "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings," as corrected on August 5, 1986. The minimum sampling requirements for stack sampling facilities, source sampling, and reporting shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60, Appendix A.

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PERMITTEE:
Gulf Marine Repair
Corporation

Permit/Certification No.: AC29-231156
Project: Ship Repair, Grit Blasting,
and Coating Operation

SPECIFIC CONDITIONS: (continued)

8. In order to ensure compliance with the emission limitations of Specific Condition Nos. 4, 5, and 6 shall be demonstrated by maintaining the following records on a daily basis for the most recent two years of operation: [Rule 62-296.500(2)(b), F.A.C.]

- A) The rule number applicable to the operation for which the records are being maintained.
- B) The application method, and the vessel, the vessel location, or part applied to.
- C) The amount and type of coatings (including catalyst and reducer for multicomponent coatings), solvent, used at each point of application, including exempt compounds.
- D) The VOC content as applied in each coating and solvent material.
- E) The date for each application of coating and solvent material.
- F) The amount of surface preparation, clean-up, wash-up of solvent (including exempt compounds) used and the VOC content of each.
- G) Sum the total VOC emissions from the coating operations for each month and maintain a 12 month rolling total.

9. The permittee shall not allow the discharge of air pollutants which contribute to an objectionable odor. [Chapter 1-3.22(3) of the Rules of the Environmental Protection Commission of Hillsborough County]

10. All VOC emissions from solvent washings shall be considered in the emission limitations of coatings subject to Specific Condition No. 4, unless the solvent is directed into containers that prevent evaporation into the atmosphere. [Rule 62-296.513(2)(c), F.A.C.]

11. The permittee shall not store, handle, process, or use in any process the volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems as follows and as deemed necessary and ordered by the Department: [Rule 62-296.320, F.A.C.]

- A) Maintain covers, lids, etc. on all containers when they are not being handled, tapped, etc.
- B) Where possible and practical, procure/fabricate a tightly fitting cover for any open trough, basin, etc. of VOC so that it can be covered when not in use.
- C) Attend to all spills/waste as soon as practical but no later than one hour after the event.
- D) Using only airless spray applicators.
- E) Using high solids coatings whenever they are available and whenever they meet customer specifications.
- F) Using portable screens or other barriers, as necessary, to prevent paint overspray or paint spillage beyond the property limits or into the waters of Tampa Bay.

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PERMITTEE:
Gulf Marine Repair
Corporation

Permit/Certification No.: AC29-231156
Project: Ship Repair, Grit Blasting,
and Coating Operation

SPECIFIC CONDITIONS: (continued)

Grit Blasting Operations

12. Visible emissions from the grit blasting activities, exhaust from the abrasive grit storage silo, and the exhaust from the diesel driven air compressor shall not be equal to or greater than 20% opacity. [Rule 62-296.310, F.A.C.]

13. As requested by the permittee to limit the potential to emit to exempt the facility from Rule 62-212.400, F.A.C., the maximum allowable particulate matter emissions from the grit blasting operations shall not exceed _____ tons for any 12 consecutive month period. [Rule 62-212.300, F.A.C.]

14. No used or waste oils shall be burned in the diesel compressors. [Rule 62-4.070(3), F.A.C.]

15. In order to ensure compliance with the emission limitations in Specific Condition Nos. 12 and 13, the following shall apply:

- A) No more than _____ tons of abrasive grit shall be used in any 12 month period.
- B) All dust laden air which is displaced in the silo loading process shall be filtered before being discharged to the ambient air.
- C) No more than _____ blasting nozzles shall be in use at any given time.
- D) Emission calculations, when requested, shall be done in accordance with the Application of May 9, 1993.

16 Test the emissions from the diesel driven air compressor, grit storage silo exhaust, and the blasting of a ship (as described below) for opacity on or within 60 days of receipt of this permit and submit two copies of test data to the Air Management Division of the Environmental Protection Commission of Hillsborough County office within forty-five days of such testing. Tests on the blasting operation shall include a dry blasting test on a marine vessel exterior hull and a dry blasting test on the superstructure with the use of wind screens or tarps. Testing procedures shall be consistent with the requirements of Rule 62-297.340, F.A.C.

17. Compliance with the emission limitations of Specific Condition No. 12 shall be determined using EPA Method 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C. All EPA Method 9 observation periods shall be at least thirty (30) minutes in duration. The observation point for the blasting operation tests shall be at the point of maximum opacity leaving the dry dock enclosure, tarp

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PERMITTEE:
Gulf Marine Repair
Corporation

Permit/Certification No.: AC29-231156
Project: Ship Repair, Grit Blasting,
and Coating Operation

SPECIFIC CONDITIONS: (continued)

enclosure, or wind screens whichever is applicable. The minimum requirements for stack sampling facilities, source sampling, and reporting, shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60, Appendix A.

18. Compliance testing of emissions must be conducted within 90-100% of the maximum capacity, which for the blasting of a ship includes nozzles operating simultaneously. Failure to submit the input rate of operation at conditions during testing which do not reflect actual operating conditions may invalidate the data. [Rule 62-4.070(3), F.A.C.]

19. The permittee shall notify the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the contact person who will be responsible for coordinating and having such test conducted. [Rules 62-297.340(1)(i) and 62-209.500, F.A.C.]

20. The following reasonable precautions shall be taken to control the emissions of unconfined particulate matter associated with the abrasive blasting and to ensure compliance with Specific Condition No. 13: [Rule 62-296.310, F.A.C.]

- A) The permittee shall use only coal slag for abrasive blasting materials unless prior approval is received from the Environmental Protection Commission of Hillsborough County to use another material.
- B) No spent abrasive material shall be reused.
- C) The permittee may use wet grit blasting techniques whenever desirable. In the event that wet blasting is used, the permittee shall be required to obtain the appropriate water pollution permits in accordance with Rule 62-4.240, F.A.C. prior to commencing wet blasting.
- D) The permittee shall use lateral screens or other barriers on all sides (360') that extend above the blasting to surround all areas of blasting activities, and below the blasting, to prevent particulate matter emissions and solid waste from entering into the waters of Tampa Bay. No unconfined blasting of the marine vessel's exterior hull or superstructure shall be allowed.
- E) The permittee shall conduct all blasting from the top of the ship down, and shall blast with the nozzle directed downward in order to control airborne emissions except when blasting beneath the vessel or on a small part which makes it physically impractical.

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PERMITTEE:
Gulf Marine Repair
Corporation

Permit/Certification No.: AC29-231156
Project: Ship Repair, Grit Blasting,
and Coating Operation

SPECIFIC CONDITIONS: (continued)

- F) The permittee shall require all blasting operators to be trained on procedures which minimize airborne emissions of blasting materials. Records of training (when it was offered and who attended) will be maintained and be made available for inspectors of the Environmental Protection Commission of Hillsborough County upon request.
- G) The permittee shall use only manual sweeping and vacuum systems to clean-up spent blasting materials. The permittee shall ~~clean-up spent blasting materials and other waste prior to submerging the dry dock.~~ No blowers are permitted.
- H) Within 30 days of issuance of this permit, the permittee shall equip all pneumatically loaded grit storage silos with a filtration device on the exhaust opening. The device must retain 90% of 25 micron or larger particulate matter.
- I) All solid waste shall be recycled or disposed of in a permitted Class I or II landfill or other facility approved by the Environmental Protection Commission of Hillsborough County. Receipt of disposal shall be maintained on site for a period of two years and made available to inspectors upon request. [Rule 62-701, F.A.C.]

21. The permittee shall maintain monthly records on the type and amount of abrasive blasting material used in order to demonstrate compliance with Specific Condition Nos. 15.A. and 20.A. A rolling 12 month total shall be kept as well. [Rule 62-4.070(3), F.A.C.]

22. The use of property, facilities, equipment, processes, products, or compounds, or the commission of paint overspraying or any other act, that causes or materially contributes to a public nuisance is prohibited, pursuant to the Hillsborough County Environmental Protection Act, Section 16, Chapter 84-446, Laws of Florida, as Amended.

23. When the Environmental Protection Commission of Hillsborough County (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 Rule 62-210, 62-212, 62-252, 62-272, 62-273, 62-275, 62-296, or 62-297, F.A.C., or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the EPC. [Rule 62-297.340(2), F.A.C.]

24. Submit to the Environmental Protection Commission of Hillsborough County each calendar year on or before March 1, completed DEP Form 62-210.900(4), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year. [Rule 62-210.370(2), F.A.C.]

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Rec 09/10/97

**ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY**

FAX TRANSMITTAL SHEET

DATE: 9/10/97

TO: Scott Sheplack

cc: Lenna Anderson

FAX PHONE: _____

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EPC FAX TRANSMISSION LINE: (813) 272-5605

FOR RETRANSMISSION OR ANY FAX PROBLEMS, CALL: (813) 272-5530

FROM: Alice H. Harman

(CIRCLE APPLICABLE SECTION BELOW)

AIR DIVISION

-ENFORCEMENT

-ENGINEERING

-SUPPORT OPERATIONS

SPECIAL INSTRUCTIONS: FYI. we will be submitting an extension of hearing for fourteen days. This is a rough draft of original comments.

Re: TEC - Gannan

0570040-002-AU

1. **Specific Condition(s): A.2., B.2., C.2 (Methods of Operations Fuels):** Under methods of operation in the draft permit, it states that the No. 2 fuel oil and the coal shall not be cofired. Our previous inspection of the facility along with the information contained in section III.I.6 of the application, "Procedures For Start-up and Shut Down", indicates Tampa Electric cofires No. 2 fuel oil and coal during start-up. Based on their current operation, it appears they would be in violation of this condition. Please revise that cofiring may occur during start-up. The rule quote should be Rule 62-210 (274) not Rule 62-210 (272). (See additional comments below concerning used oil.)
2. **Specific Condition(s): A.3., B.4., C.3. (Test Methods and Procedures):** These conditions require the Tampa Electric use EPA reference methods along with fuel analysis to demonstrate compliance with the visible emission and sulfur dioxide emission limits. However, the application (section III Part 9b-1), Tampa Electric has proposed the method of compliance for visible emissions and sulfur dioxide would be fuel sampling or CEM. EPC is in agreement with the use of CEMs but not the option to perform either. The conditions should be modified to require CEM as the method of compliance on a continuous frequency. In order to insure the accuracy of the data, the permit should also require that the CEMs be quality assured in accordance with 40CFR60 Appendix F.
3. **Specific Condition(s): A.4., B.5., C.4. (Monitoring of Operations):** In listing the operation and maintenance parameters for performance and particulate control, the conditions need to specify either maximum or minimum design parameters. For example, the more power delivered to the ESP in the form of higher voltages and currents results in higher removal efficiencies. Therefore, these parameters need to state minimum design settings. In order to ensure proper operation of the boilers and in order to reduce the boiler tube failure rates, the maximum steam pressure and temperature should be specified. The following clarification needs to be added (additional wording underlined) based on Rule 62-296.700(6)(a), F.A.C.:
 - Maximum Design Operating Pressure
 - Maximum Design Operating Temperature
 - Minimum Design Primary Voltage
 - Minimum Design Primary Current
 - Minimum Design Secondary Voltage
 - Minimum Design Secondary Current
 - Specific Collection Area for ESP
- 3a. If CEMs are accepted as the method of compliance, the following observations need to be added (underlined) based on Rules 62-213.440(1) and 62-296.700(6)(d):
 - Continuously Monitored and Recorded:
 - NOx (lb/MMbtu)
 - SO₂ (lb/MMbtu)
 - CO₂ (lb/MMbtu)

- Gas Flow (ACFM)
 - Heat Input (MMbtu/hr)
 - Daily Recorded and Monitored:
 - Check Hoppers
 - Flue Gas condition system sulfur usage (Unit #6 only)
4. **Specific Condition B.2. (Methods of Operation - Fuels), B.5. (Monitoring of Operation):** Permit AO29-255208 (Unit 4) includes the burning of "on-specification" used oil at a maximum firing of 48 gal/min. What is the reference for the 1,000,000 gal/yr maximum usage? According to the attached memorandum dated 12/15/93, the DEP encourages the burning of "on-specification" used oil. Based on our inspections, Tampa Electric is burning "on-specification" used oil in all of the boilers at the facility. Therefore, the allowable fuels (Specific Conditions A.2., B.2., C.2.) and the conditions for the "on-specification" used oil (Specific Condition B.6) needs to be referenced for all boiler units.
5. **Subsection E (Description):** There appears to be some transfer points missing from the coal yard: D1 to G1, D2 to G2; all points associated with flux handling (tab 14 of application). Please include all transfer/handling units as required under Rule 62-210.300 and Rule 296-700, F.A.C..
6. **Specific Condition E.3. (Visible Emissions):** Rule quote should be "62-296.711(2)(a), F.A.C.."
7. **Specific Condition E.4. (Particulate Matter), Table 1-1:** The PM standard as listed appears to apply to the entire yard while moving 2.85 million tons of coal. Our reading of AC29-152987 sets the 1.43 pounds per hour and 0.51 tons per year limitation to a single piece of equipment, the west coal unloading station. We recommend you delete the Specific Condition altogether, since the equations used to calculate it are highly subjective. The 5% standard under E.3. is verifiable and sufficient to ensure reasonable handling. If you feel compelled to leave it in, then add that it only applies to the west end unloading station.
8. **Specific Condition F.4., G.4., H.4., I.3., I.4., Table 2-1 (pg. 7 of 7): (Test Methods and Procedures):** Either clarify here that the particulate matter test is not required if they accept a 5% visible emission under the exemption Rule 62-297.310(7)(c) or add a note to see Subsection K. Common Conditions for further information. **For Specific Conditions L3. and L4.:** If they chose not to accept 5%, then they should be required to test at least one cyclone for PM under Rule 62-296.700(2)(c) to show compliance with the 0.19 pound per hour standard. At a flow rate of 9600 acfm, the 0.19 pounds per hour equates to 0.002 gr/dscf. That is a very tight standard and 20% opacity readings would not provide assurance the roto-clones are meeting the standard. In fact, we suspect they would have to add baghouses to meet that level of PM standard.

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9. **Subsection J. Common Conditions: J.12. (Sulfur Dioxide), Table 2-1 (pg. 1 of 7):** Test Methods and Procedures for sulfur dioxide list methods described in Rule 62-296.405(1)(e)3. If CEMs are accepted for demonstration of compliance, this conditions needs to be adjusted accordingly to include the quality assurance requirements of 40CFR60 Appendix F.
10. **Subsection J. Common Conditions: J.17. (Operating Rate During Testing):** , During normal operating, the boiler conditions are controlled by placing the system in an "automatic" mode, which monitors the demand for power and automatically adjust the fuel and air flow rates accordingly. These fluctuations are usually not large enough to be considered a load change as defined in Rule 62-210.700(3), however they do result in increases in particulate matter emissions. Based upon our inspections and knowledge of Tampa Electric's boiler operations, we have found that during testing, Tampa Electric manually controls the boiler conditions which is not normal operating conditions. We suggest that the condition be revised to include the following language to insure that all testing is conducted under normal conditions based on Rule 62-4:07(3) and 62-297.310(2), F.A.C. As follows, additional wording (underlined):
"... at permitted capacity, under normal conditions...allowed by the permit. Each emission unit should be tested with the station master and boiler master in the automatic mode in order to insure the emissions are representative of normal conditions."
11. **Subsection J. Common Conditions: J.24.(Continuous Monitoring Requirements):** Additional wording needs to be included as follows: Tampa Electric Company shall perform quality assurance on the SO₂, Nox, and Opacity monitors in accordance with 40 CFR60 Appendix F.
12. **Subsection J. Common Conditions: J.27.:** Additional wording needs to be included as follows: "... compliance test or quarterly CEM audit is to begin..." per Rule 62-297.310(7)(a)9, F.A.C.
13. **Subsection J. Common Conditions: J.29. (Test Reports):** In order to better correlate the particulate matter emissions with the visible emissions from each boiler, CEM readings shall be submitted for the period during particulate matter testing.
14. **Subsection J. Common Conditions: J.33.(Boiler Cleaning Waste):** Previous permits do not discuss the addition of boiler cleaner waste being injected into the boiler. Is this condition federally enforceable? EPC is uncertain of the impact this waste will have on fuel usage, emissions, etc. What are the combustion by products speciated by type and amount and the method of material introduction into the boiler per Rule 62-210.300(2)(a)1.
15. **Subsection J. Common Conditions: Add (Quarterly Reporting):** An additional condition should be included for the CEM audits that are required under 40CFR60 Appendix F. "Quarterly reports for CEM audits performed in accordance with 40

CFR60 Appendix F shall be submitted within 45 days to the Environmental Protection Commission of Hillsborough County following a calendar quarter.

16. Subsection J: Common Conditions: Add: EPC requests that a condition be included in the Title V draft permit for all units that burn liquid fuel as follows:

- Sulfur dioxide emissions shall be limited to 1.1 pounds per million Btu heat input when liquid fuel is burned. [Rule 1-3.63c., Environmental Protection Commission of Hillsborough County Chapter 1-3, Air Pollution]

17. Appendix E-1:

- **Nos. 6, 8, and 10:** Since Tampa Electric did not provide information regarding the type and amount of paint, blasting abrasives used on site, permit conditions should state that only coal slag be used and limit the amount. Also, Tampa Electric states that unconfined abrasives blasting is an unregulated activity. This is not correct. Pursuant to Rules 62-210 and 62-296, F.A.C., EPC has permitted several grit blasting and painting operations in Hillsborough County.
- **No. 9:** It is unclear for the application and permit what belt conveyors are requested for exemption. All conveyors in the fuel handling area should be included under Subsection E are subject to Rule 62-296.711, F.A.C. and should not be exempt. Is this supposed to be a belt sander?
- **No. 12:** If they are conditioning the flue gas of any of the boilers (Unit 6 permitted) with SO^3 , the permit will need to address compliance with Rule 62-296.411, F.A.C., for the liquid sulfur handling on the front end. The conditioning is probably a function of the fuel type (pct coke or coal) and the characteristics of the regional coal which they are firing. The permit should require accurate recordkeeping on the amount of sulfur consumed (see Specific Condition C.4. note) and the SO^3 concentration in the condition boiler exhaust. If they are exempt from any standards in Rule 62-296.411 based on storage capacity or usage, there should be a specific condition stating it.

18. Appendix F: SO_2 Compliance Plan: If CEMs are accepted as the method of compliance for SO_2 , then the compliance plan needs to be revised.

Overall Notes to be included:

1. Tampa Electric has calculated particulate matter emissions (PME) from the fuel yard using the AP-42 drop equation. This is the least conservative method of estimating emissions from coal handling and does not account for PM as captured by a Method 5 sampling train. It arbitrarily excludes all particles greater than 30um and thus underestimates PM emissions. In order to use these equations correctly, the surface moisture needs to be plugged in. Because of their subjectivity and their common misuse, we are very cautious about any figures derived from the infamous drop equation. The 5% visible emission standard is verifiable and reasonable.

COMMISSION

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ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

FAX TRANSMITTAL SHEET

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FROM: Rick Kirby

(CIRCLE APPLICABLE SECTION BELOW)

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MEMORANDUM

DATE: September 25, 1997

TO: Cindy Phillips, P.E.

FROM: *RR* Richard C. Kirby, IV, P.E. **THRU:** *JS* Jerry Campbell, P.E.

SUBJECT: TECO - Big Bend Power Plant Title V Permit, 0570039-002-AV

This memo is written in response to your inquiry as to whether the subject facility is in compliance with current permits and applicable regulations. Particular issues discussed were controls for open drop points in the coal yard and the previously unpermitted flue gas treatment system including molten sulfur storage, SO₂ generation, and H₂SO₄ emissions.

Based on EPC inspections of the facility, the coal handling operations are in compliance with applicable standards. The requirement for controls in TECO's latest modification permit seems to imply that baghouses are required since reference is made to air-to-cloth ratio. The control currently used is dust suppressant spray. Since emission standards are met using this type of pollution control, we consider the operation to be in compliance.

The flue gas treatment system using molten sulfur to generate SO₂ is not addressed in their current permits and TECO has not provided adequate information to determine if a modification was triggered. Since we do not have enough information to thoroughly evaluate this activity, we recommend that the Title V draft permit include a compliance plan. It should require submittal of either adequate information to show that a modification was not triggered or an application for an after-the-fact modification and any necessary control measures. This compliance plan should not provide any type of shield if there are enforcement remedies necessary to correct the situation. The attached memo appears to be relevant.

Thank you for the opportunity to provide input.

bm



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

10 APR 1989

PN 165-89-04-10-041

MEMORANDUM

SUBJECT: Prevention of Significant Deterioration (PSD)
Applicability to Sulfur Dioxide (SO₂) Emissions
from Incineration of Total Reduced Sulfur (TRS)
Compounds

FROM: John Calcagni, Director
Air Quality Management Division (MD-15)

TO: Winston A. Smith, Director
Air, Pesticides, and Toxics Management Division,
EPA Region IV

This is in response to your memorandum of March 16, 1989 in which you requested answers to questions concerning PSD applicability to SO₂ emissions resulting from a boiler modification at Union Camp Corporation's Savannah, Georgia, kraft pulp mill. The issue, in general, is whether an increase in emissions of one pollutant at a source is exempt from PSD review when it results from the addition of an air pollution control device or a change in the method of operation of the source to reduce emissions of another pollutant. According to your memorandum, the Georgia Environmental Protection Division has contested Region IV's position that PSD would apply to an increase of SO₂ emissions on the order of several thousand tons per year (tpy) from the pulp mill's power boiler as the result of incinerating TRS compounds. You asked whether Union Camp's power boiler would be subject to PSD for SO₂, and whether best available control technology (BACT), ambient air impact, and increment consumption analyses would be required. You also asked whether any grandfathering provisions are applicable to sources that may have constructed under a permit that did not contain a BACT analysis for power boiler SO₂ emission increases resulting from incineration of TRS compounds. In addition you requested: (1) a count of agencies with approved section 111(d) TRS plans indicating which ones have interpreted these rules similar to Florida; and (2) a list of sources that have not been required to undergo a BACT analysis under conditions similar to the Union Camp situation in question.

On July 7, 1986, the Office of Air Quality Planning and Standards sent to all Regional Air Division Directors a * memorandum addressing this very issue (see attached). The memorandum also appears as item number 4.32 in the New Source Review PSD and Nonattainment Area Guidance Notebook. The

* 7/7/86 MEMO NOT ATTACHED. SEE PN 165-86-07-07-024

2

memorandum makes clear that the new source performance standard exemption of certain changes to a source's emission control systems (and resulting emissions increase) from inclusion in the definition of "modification" does not apply to the definition of "modification" under PSD. Because the modifications to the power boiler at the Union Camp mill result in an emissions increase exceeding the significance level (40 tpy) for triggering PSD applicability as defined in 40 CFR 52.21(b)(23)(i), the emissions increase is subject to a full PSD review, including "top-down" BACT, air quality impact, and increment consumption analyses.

State agencies and permit applicants should have been aware within six months of issuance of the policy explained in the July 7, 1986, memorandum. Therefore, no grandfathering is needed for sources permitted after January 7, 1987. In cases where a permit that erroneously exempted emission increases of a pollutant from PSD review, the source is subject to enforcement action by the State or local agency. Appropriate enforcement action would include requiring the source to perform any analyses required under full PSD review that were not done for the approved permit. The reviewing authority may, of course, using the complete PSD analyses submitted by the source, consider energy, environmental, and economic impacts in determining BACT. Under no circumstances may emissions cause or contribute to a violation of any national ambient air quality standard or PSD increment.

Concerning State TRS plans, the Code of Federal Regulations, Part 62, lists States with approved plans. I suggest that you refer to this Part to determine the status of the States' section 111(d) TRS plans. Also, we are not aware of any other similar sources that may have been issued a permit without undergoing a BACT analysis. However, this memorandum will be sent to the Regional Offices with a request that, if any Region is aware of sources which may have been issued a permit without undergoing a BACT analysis, they contact you directly. In addition, we will post it on the NSR electronic Bulletin Board and request that the Regions send a copy to the States.

If you have any more questions concerning PSD applicability at the Union Camp pulp mill, please contact Sam Duletsky in our New Source Review Section at FTS 629-0873.

Attachment

cc: E. Lillis
G. McCutchen
S. Duletsky
D. Painter

Extension to 0730

Tampa Electric Company
F. J. Gannon Station
Facility ID No.: 0570040
Hillsborough County

Initial Title V Air Operation Permit
DRAFT Permit No.: 0570040-002-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section

Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-1344
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Drafted on August 20, 1997

Environmental Protection Commission
of
Hillsborough County
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Tampa, Florida 33605
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Initial Title V Air Operation Permit
DRAFT Permit No.: 0570040-002-AV

Table of Content

<u>Section</u>	<u>Page Number</u>
Placard Page	1
I. Facility Information	2
A. Facility Description.	
B. Summary of Emissions Unit ID No(s). and Brief Description(s).	
C. Relevant Documents.	
II. Facility-wide Conditions.....	4
III. Emissions Units and Conditions	
A. Units Nos. 1-3 Solid Fuel-Fired Steam Generators.....	6
B. Unit No. 4 Solid Fuel-Fired Steam Generator.....	10
C. Units Nos. 5-6 Solid Fuel-Fired Steam Generators.....	15
D. Combustion Turbine	19
E. Coal Yard.....	25
F. Unit No. 4 Economizer Ash Silo with Baghouse.....	32
G. Units Nos. 5-6 Fly Ash Silo with Baghouse.....	35
Pugmill and Truck Loading	
H. Units Nos. 1-4 Fly Ash Silo (No. 2) with Baghouse	38
I. Units Nos. 1-6 Bunker with Roto-Clone.....	41
J. Common Conditions	44
K. Common Conditions	56
IV. Acid Rain Part	
A. Acid Rain, Phase II	58



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
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Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

Permittee:

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

DRAFT Permit No.: 0570040-002-AV

Facility ID No.: 0570040

SIC No.: 49, 4911

Project: Initial Title V Air Operation Permit

This permit is for the operation of the F. J. Gannon Station. This facility is located at Port Sutton Road, Tampa, Hillsborough; UTM Coordinates: Zone 17, 360.1 km East and 3087.5 km North; Latitude: 28° 02' 31" North and Longitude: 82° 25' 31" West

STATEMENT OF BASIS: This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named Permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix E-1, List of Exempt Emissions Units and/or Activities
APPENDIX TV-1, TITLE V CONDITIONS (version dated 08/11/97)
Appendix SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)
Phase II Acid Rain Application/Compliance Plan received December 26, 1995
Appendix F, F. J. Gannon Sulfur Dioxide Compliance Plan

Effective Date: January 1, 1998

Renewal Application Due Date: July 5, 2002

Expiration Date: December 31, 2002

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/sms/la

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of six steam boilers (Units 1 through 6); six steam turbines; one simple-cycle combustion turbine; a once-through cooling water system; solid fuels, fluxing material, fly ash, slag, and storage/handling facilities; fuel storage tanks; and ancillary support equipment. The nominal output is 1,317 megawatts (MW). The facility utilizes coal as its primary fuel for Units 1-6. The combustion turbine is allowed to burn new No. 2 fuel oil, with a maximum sulfur content of 0.5% by weight.

Also included in this permit are miscellaneous exempt emissions units and/or activities.

Based on the initial Title V permit application received June 14, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-001	Unit No. 1-Fossil Fuel-Fired Steam Generator
-002	Unit No. 2-Fossil Fuel-Fired Steam Generator
-003	Unit No. 3-Fossil Fuel-Fired Steam Generator
-004	Unit No. 4-Fossil Fuel-Fired Steam Generator
-005	Unit No. 5-Fossil Fuel-Fired Steam Generator
-006	Unit No. 6-Fossil Fuel-Fired Steam Generator
-007	Combustion Turbine
-008	Coal Yard
-009	Unit 4 Economizer Ash Silo with Baghouse
-010	Unit 5 and 6 Fly Ash Silo No. 1 with Baghouse
-011	Units 1-4 Fly Ash Silo with Baghouse (Fly Ash Silo No. 2)
-012	Pugmill and Truck Loading
-013	Unit No. 1 Coal Bunker with Roto-Clone
-014	Unit No. 2 Coal Bunker with Roto-Clone
-015	Unit No. 3 Coal Bunker with Roto-Clone
-016	Unit No. 4 Coal Bunker with Roto-Clone
-017	Unit No. 5 Coal Bunker with Roto-Clone
-018	Unit No. 6 Coal Bunker with Roto-Clone

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the Permittee for information purposes only:

Table 1-1, Summary of Air Pollutant Standards and Terms

Table 2-1, Summary of Compliance Requirements

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1, Permit History/ID Number Changes

These documents are on file with permitting authority:

Initial Title V Permit Application received June 14, 1996

Phase I Acid Rain Permit dated July 14, 1994

Additional Information Request dated November 19, 1996

Additional Information Response received February 21, 1997

Additional Information Request dated March 20, 1997

Additional Information Response received June 16, 1997

Letter dated February 21, 1997, changing the Responsible Official

Letter dated June 13, 1997, changing the Responsible Official

Letter dated June 27, 1997, changing the Designated Representative

Letter dated July 7, 1997, authorizing venting of slag tanks to atmosphere

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-1, TITLE V CONDITIONS is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate. }
2. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringlemann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
 - a. a risk management plan (RMP) when, and if, such requirement becomes applicable;
 - b. certification forms and/or RMPs according to the promulgated rule schedule.[40 CFR 68]
5. Exempt Emissions Units and/or Activities. Appendix E-1, List of Exempt Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]
6. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]

7. **Not federally enforceable.** Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- (a) Attend to accidental spills (coal and fly ash) promptly and effectively. -
- (b) Inspect the boiler, the electrostatic precipitators and the ductwork for gas leaks at least once a month. Note any problems and action taken.

[Rule 62-296.320(4)(c)2., F.A.C.; Proposed by applicant in the initial Title V permit application received June 14, 1996]

8. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one. - [Rule 62-213.440, F.A.C.]

9. **Not federally enforceable.** The permittee shall submit all compliance related notifications and reports required of this permit to the Environmental Protection Commission of Hillsborough County:

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

10. **Not federally enforceable.** Any reports, data, notifications, certifications, and request required to be sent to the United States Environmental Protection Agency, Region 4, should be sent:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Operating Permits Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9099
Fax: 404/562-9095

Section III. Emissions Units.

Subsection A. This section addresses the following emissions units.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-001	Unit No. 1-Fossil Fuel Fired Steam Generator
-002	Unit No. 2-Fossil Fuel Fired Steam Generator
-003	Unit No. 3-Fossil Fuel Fired Steam Generator

Units Nos. 1 and 2 are 1257 MMBTU/hr. coal fired steam generators. These "wet" bottom boilers were manufactured by Babcock-Wilcox Corporation and are of the cyclone firing type. The generators have a nameplate capacity of 125 MW each. Particulate emissions are controlled by a Combustion Engineering, Inc. electrostatic precipitator. New No. 2 fuel oil is used as an ignition fuel during startup. Unit Nos. 1 and 2 began commercial operation in August 1957 and October 1958, respectively.

Unit No. 3 is a 1599 MMBTU/hr. coal fired steam generator. This "wet" bottom boiler was manufactured by Babcock-Wilcox Corporation and is of the cyclone firing type, equipped with an optional flue gas recirculation (heat recovery) system to maintain steam temperature at low loads. The generator has a nameplate capacity of 179.5 MW. Particulate emissions are controlled by a Combustion Engineering, Inc. electrostatic precipitator. New No. 2 fuel oil is used as an ignition fuel during startup. Unit No. 3 began commercial operation in August 1960.

{Permitting note: These emissions units are regulated under Acid Rain, Phase I and II; Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per hour heat input. }

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum operation heat input rates are as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
1 and 2	1257	Coal New No. 2 fuel oil
3	1599	Coal New No. 2 fuel oil

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

A.2. Methods of Operation. Fuels.

- a. Startup: The only fuel allowed to be burned is new No. 2 fuel oil.
- b. Normal: The only fuel allowed to be burned is coal. New No. 2 fuel oil shall not be cofired with coal.

{Permitting note: "Startup" - The commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions}

[Rules 62-4.160(2), 62-210.200(272) and 62-213.440(1), F.A.C.]

Test Methods and Procedures

{Permitting note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.3. Unit No. 1, Unit No. 2, and Unit No. 3 shall each be individually stack tested for particulate matter and visible emissions, under both sootblowing and non-sootblowing operation conditions, and for sulfur dioxide emissions. The required frequency shall be as follows:

<u>Unit No.</u>	<u>Required Stack Testing</u>	<u>Annual Date</u>	<u>Required frequency</u>
1	Particulate Matter (non-sootblowing) Particulate Matter (soot-blowing) Visible Emissions (non-sootblowing) Visible Emissions (soot-blowing) Sulfur Dioxide	19-Feb.	Annually*
2	Particulate Matter (non-sootblowing) Particulate Matter (soot-blowing) Visible Emissions (non-sootblowing) Visible Emissions (soot-blowing) Sulfur Dioxide	28-Aug.	Annually*
3	Particulate Matter (non-sootblowing) Particulate Matter (soot-blowing) Visible Emissions (non-sootblowing) Visible Emissions (soot-blowing) Sulfur Dioxide	13-Nov.	Annually*

*The units shall be tested at intervals of 12 months from the annual date, or within a 60-day period prior to that annual date.

[Rule 62-297.310(7)(a)4., F.A.C., AO29-204434, AO29-189206, AO29-172179]

Monitoring of Operations

A.4. Operation and Maintenance for Particulate Control:

A. Process System Performance Parameters:

1. Source Designator: Units Nos. 1, 2 and 3
2. Design Fuel Consumption Rate at Maximum Continuous Rating:

<u>Unit</u>	<u>Tons/hr (coal).</u>
1	50
2	51
3	65

3. Operating Pressure:

<u>Unit</u>	<u>Psi.</u>
1	1575
2	1580
3	1980

4. Operating Temperature: 1000 °F
5. Maximum Design Steam Capacity:

<u>Unit</u>	<u>Pounds/hr</u>
1	910,000
2	950,000
3	1,160,000

B. Particulate Control Equipment Data:

1. Control Equipment Designator: Electrostatic Precipitator
2. Electrostatic Precipitator Manufacturer: Combustion Engineering, Inc.
3. Design Flow Rate:

<u>Unit</u>	<u>ACFM</u>
1	440,000
2	440,000
3	574,000

4. Primary Voltage: 460 volts
5. Primary Current:

<u>Unit</u>	<u>Amps</u>
1	258
2	258
3	172

6. Secondary Voltage: 56.6 kilovolts

7. Secondary Current:

<u>Unit</u>	<u>milliamps</u>
1	1,500
2	1,500
3	1,000

- 8. Design Efficiency: 99.09%
- 9. Pressure Drop: 1.59 in. H₂O (avg)
- 10. Rapper Frequency: 1/1.5 min. - 1/4.0 min (avg)
- 11. Rapper Duration: Impact
- 12. Gas Temperature: 250 ± 55° F. (avg)

C. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Continuously Monitored and Recorded

Opacity
Steam pressure
Steam temperature
Steam flow

Continuously Monitored

Precipitator Trouble Alarm

Daily Recorded and Monitored

Fuel input
Primary voltage
Primary current
Secondary voltage
Secondary current
Inspect system controls. Make minor adjustment as needed.

Monthly Recorded or Inspection/Maintenance

Inspect insulator compartment heaters/blowers. Service as needed.
Observe operation of all rapper and transformer/rectifier controls..

[Rule 62-296.700(6)(b), F.A.C.; Rule 62-296.700(6)(d), F.A.C.]

A.5. These emissions units are also subject to conditions contained in Subsection J. Common Conditions.

Subsection B. This section addresses the following emissions unit.

E.U.

ID No. Brief Description

-004 Unit No. 4-Fossil Fuel Fired Steam Generator

This emissions unit is a 1876 MMBTU/hr. coal fired steam generator. This "wet" bottom boiler was manufactured by Babcock-Wilcox Corporation and is of the cyclone firing type. The generator has a nameplate capacity of 187.5 MW. Particulate emissions are controlled by a Combustion Engineering, Inc. rigid frame electrostatic precipitator, prior to discharge through two (2) 306 foot tall exhaust stacks (designated as East and West Stacks). New No. 2 fuel oil is used as an ignition fuel during startup of the unit. Also, this emissions unit is permitted to burn on-specification used oil in accordance with 40 CFR 279. Unit No. 4 began commercial operation in July 1963.

{Permitting note: The emissions unit is regulated under Acid Rain, Phase 1 and Phase II; Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per hour heat input. }

The following specific conditions apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum operation heat input rate is as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
4	1876	Coal New No. 2 fuel oil On-Specification Used oil

[Rule 62-4.160(2), 62-210.200 (PTE) and 62-296.405, F.A.C.]

B.2. Methods of Operation - Fuels.

- a. Startup: The only fuel allowed to be burned is New No. 2 fuel oil.
- b. Normal: The only fuels allowed to be burned in this boiler are coal or on-specification used oil. Coal can be cofired with on-specification used oil. New No. 2 fuel oil shall not be cofired with coal or on-specification used oil.

{Permitting note: "Startup" - The commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions }

[Rules 62-4.160(2), 62-210.200(272), and 62-213.440(1), F.A.C.]

Emission Limitations and Standards

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

B.3. Not federally enforceable. Sulfur Dioxide. Sulfur dioxide when burning on-specification used oil shall not exceed 1.1 pounds of SO₂ per million Btu heat input. [Rule 1-3.63(c), Rules of the EPCHC] *change to 1.0% sulfur*

Test Methods and Procedures

{Permitting note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.4. Unit No. 4 shall be stack tested for particulate matter and visible emissions, under both sootblowing and non-sootblowing operation conditions, and for sulfur dioxide emissions. The required frequency shall be as follows:

<u>Unit No.</u>	<u>Required Stack Testing</u>	<u>Annual Date</u>	<u>Required frequency</u>
4	Particulate Matter (non-sootblowing)	9-May	Annually*
	Particulate Matter (soot-blowing)		
	Visible Emissions (non-sootblowing)		
	Visible Emissions (soot-blowing)		
	Sulfur Dioxide		

*The unit shall be tested at intervals of 12 months from the annual date, or within a 60-day period prior to that annual date.

[Rule 62-297.310., F.A.C.]

Monitoring of Operations

B.5. Operation and Maintenance for Particulate Control:

A. Process System Performance Parameters:

1. Fuel: Low sulfur coal, new No. 2 fuel oil or on-specification used oil
2. Design Fuel Consumption Rate at Maximum Continuous Rating:
 - Coal - 80 tons/hour
 - New No. 2 fuel oil - 18 gallons/minute
 - On-specification used oil - 48 gallons/minute; max. 1,000,000 gal/yr
3. Operating Pressure: 1890 psi.

4. Operating Temperature: 1000 °F
5. Maximum Design Steam Capacity: 1,260,000 pounds per hour

B. Particulate Control Equipment Data:

1. Control Equipment Designator: Electrostatic Precipitator
2. Electrostatic Precipitator Manufacturer: Combustion Engineering, Inc.
3. Design Flow Rate: 631,000 ACFM
4. Primary Voltage: 460 volts
5. Primary Current: 172 amps
6. Secondary Voltage: 56.6 kilovolts
7. Secondary Current: 1,000 milliamps
8. Design Efficiency: 99.05%
9. Pressure Drop: 1.58 in. H₂O (avg)
10. Rapper Frequency: 1/1.5 min. - 1/3.5 min (avg)
11. Rapper Duration: Impact
12. Gas Temperature: 250 ± 55° F. (avg)

C. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Continuously Monitored and Recorded

Opacity
Steam pressure
Steam temperature
Steam flow

Continuously Monitored:

Precipitator Trouble Alarm

Daily Recorded and Inspected

Fuel input
Primary voltage
Primary current
Secondary voltage
Secondary current
Inspect system controls. Make minor adjustment as needed.

Monthly Recorded or Inspection/Maintenance

Inspect insulator compartment heaters/blowers. Service as needed.
Observe operation of all rapper and transformer/rectifier controls.

[Rule 62-296.700(6)(b), F.A.C.; Rule 62-296.700(6)(d), F.A.C.]

Miscellaneous Conditions

B.6. Used Oil. Burning of on-specification used oil is allowed at this emissions unit in accordance with all other conditions of this permit and the following conditions:

- a. **On-specification Used Oil Emissions Limitations:** This emissions unit is permitted to burn on-specification used oil, which contains a PCB concentration of less than 50 ppm. On-specification used oil is defined as used oil that meets the specifications of 40 CFR 279 - Standards for the Management of Used Oil, listed below. "Off-specification" used oil shall not be burned. Used oil which fails to comply with any of these specification levels is considered "off-specification" used oil.

CONSTITUENT/PROPERTY	ALLOWABLE LEVEL
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash point	100 degrees F minimum

- b. **Quantity Limitation:** This emissions unit is permitted to burn "on-specification" used oil that is generated by the F. J. Gannon Station in the production and distribution of electricity, not to exceed 1,000,000 gallons during any consecutive 12 month period.
- c. **PCB Limitation:** Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
- d. **Operational Requirements:** On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.
- e. **Testing Requirements:** The owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:
- (1) Arsenic, cadmium, chromium, lead, total halogens, flash point and PCBs.
 - (2) Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).
- f. **Record Keeping Requirements:** The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department: [40 CFR 279.61 and 761.20(e)]

- (1) The gallons of on-specification used oil generated and burned each month. (This record shall be completed no later than the fifteenth day of the succeeding month.)
 - (2) The total gallons of on-specification used oil burned in the preceding consecutive 12-month period. (This record shall be completed no later than the fifteenth day of the succeeding month.)
 - (3) Results of the analyses required above.
- g. Reporting Requirements: The owner or operator shall submit to the Environmental Protection Commission of Hillsborough County, within thirty days of the end of each calendar quarter, the analytical results and the total amount of on-specification used oil generated and burned during the quarter.

The owner or operator shall submit, with the Annual Operation Report form, the analytical results and the total amount of on-specification used oil burned during the previous calendar year.

[Rule 62-4.070(3) and 62-213.440, F.A.C., 40 CFR 279 and 40 CFR 761, unless otherwise noted; AO29-255208]

B.7. These emissions units are also subject to conditions contained in Subsection J. Common Conditions.

Subsection C. This section addresses the following emissions units.

E.U.

ID No. Brief Description

-005	Unit No. 5-Fossil Fuel Fired Steam Generator
-006	Unit No. 6-Fossil Fuel Fired Steam Generator

Unit No. 5 is a 2284 MMBTU/hr. coal fired steam generator. This "wet" bottom boiler was manufactured by Riley Stoker Corporation and is of the opposed firing type. The generator has a nameplate capacity of 239.4 MW. Particulate emissions are controlled by two Research Cottrell, Inc. electrostatic precipitators operating in series. New No. 2 fuel oil is used as an ignition fuel during startup. Unit No. 5 began commercial operation in September 1965.

Unit No. 6 is a 3798 MMBTU/hr. coal fired steam generator. This "wet" bottom boiler was manufactured by Riley Stoker Corporation and is of the opposed firing type. The generator has a nameplate capacity of 414 MW. Particulate emissions are controlled by a Research Cottrell, Inc. electrostatic precipitator, Model G.O. 3118. Before the flue gas enters the electrostatic precipitator, sulfur trioxide is added to the gas stream to serve as a conditioner to enhance electrostatic precipitator performance. New No. 2 fuel oil is used as an ignition fuel during startup. Unit No. 6 began commercial operation in September 1967.

{Permitting notes: These emissions units are regulated under Acid Rain, Phase I and II; Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per hour heat input. }

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The maximum operation heat input rates are as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
5	2284	Coal New No. 2 Fuel Oil
6	3798	Coal New No. 2 Fuel Oil

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

C.2. Methods of Operation - Fuels.

- a. Startup: The only fuel allowed to be burned is New No. 2 fuel oil.
- b. Normal: The only fuel allowed to be burned is coal. New No. 2 fuel oil shall not be cofired with coal.

Tampa Electric Company
F. J. Gannon
Page 16

DRAFT Permit No.: 0570040-002-AV

{Permitting note: "Startup" - The commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions}

[Rules 62-4.160(2), 62-210.200(272), and 62-213.440(1), F.A.C.]

Test Methods and Procedures

{Permitting note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit. }

C.3. Unit Nos. 5 and 6 shall each be individually stack tested for particulate matter and visible emissions, under both sootblowing and non-sootblowing operation conditions, and for sulfur dioxide emissions. The required frequency shall be as follows:

<u>Unit No.</u>	<u>Required Stack Testing</u>	<u>Annual Date</u>	<u>Required frequency</u>
5	Particulate Matter (non-sootblowing)	15-April	Annually*
	Particulate Matter (soot-blowing)		
	Visible Emissions (non-sootblowing)		
	Visible Emissions (soot-blowing)		
	Sulfur Dioxide		
6	Particulate Matter (non-sootblowing)	19-June	Annually*
	Particulate Matter (soot-blowing)		
	Visible Emissions (non-sootblowing)		
	Visible Emissions (soot-blowing)		
	Sulfur Dioxide		

*The units shall be tested at intervals of 12 months from the annual date, or within a 60-day period prior to that annual date.

[Rule 62-297.310(7)(a)4., F.A.C., AO 29-203511, AO29-203512]

Monitoring of Operations

C.4. Operation and Maintenance for Particulate Control:

A. Process System Performance Parameters:

1. Source Designator: Units Nos. 5 and 6
2. Design Fuel Consumption Rate at Maximum Continuous Rating:

<u>Unit</u>	<u>Tons/hr. (coal)</u>
5	93.4
6	151.4

3. Operating Pressure:

<u>Unit</u>	<u>Psi.</u>
5	2,250
6	2,600

4. Operating Temperature: 1000 °F

5. Maximum Design Steam Capacity:

<u>Unit</u>	<u>Pounds/hr</u>
5	1,660,000
6	2,700,000

B. Particulate Control Equipment Data:

1. Control Equipment Designator: Two Electrostatic Precipitators Unit No. 5; One Electrostatic Precipitator Unit No. 6

2. Electrostatic Precipitator Manufacturer: Research Cottrell Inc.

3. Model Numbers:

Unit No. 5: G.O. 3129; G.O. 2791

Unit No. 6: G.O. 3118

4. Design Flow Rate:

<u>Unit</u>	<u>ACFM</u>
5	820,000; 700,000
6	1,350,000

5. Primary Voltage:

<u>Unit</u>	<u>Volts</u>
5	400; 400
6	430-480

6. Primary Current:

<u>Unit</u>	<u>Amps</u>
5	240; 195
6	241

7. Secondary Voltage:

<u>Unit</u>	<u>Volts</u>
5	53.5; 64.5
6	53.5

8. Secondary Current:

<u>Unit</u>	<u>milliamps</u>
5	1,500; 1,000
6	1,500

9. Design Efficiency:

<u>Unit</u>	<u>Percent</u>
5	99.78; 98.5
6	98.5

10. Pressure Drop: 0.5 in. H₂O (avg)
11. Static Pressure: +15 in. H₂O (avg)
12. Rapper Frequency: 1/2.0 min. (avg)
13. Rapper Duration: Impact
14. Gas Temperature: 293 °F. (avg)

C. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Continuously Monitored and Recorded

Opacity
Steam pressure
Steam temperature
Steam flow

Continuously Monitored

Precipitator Trouble Alarm

Daily Recorded and Monitored

Fuel input
Primary voltage
Primary current
Secondary voltage
Secondary current
Inspect system controls. Make minor adjustments as needed.

Monthly Recorded or Inspection/Maintenance

Inspect insulator compartment heaters/blowers. Service as needed.
Observe operation of all rapper and transformer/rectifier controls..

[Rule 62-296.700(6)(b), F.A.C.; Rule 62-296.700(6)(d), F.A.C.]

C.5. These emissions units are also subject to conditions contained in Subsection J. Common Conditions.

Subsection D. This section addresses the following emissions unit.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-007	Combustion Turbine

This emissions unit is a simple cycle combustion turbine and is designated as Combustion Turbine # 7. It is rated at a maximum heat input of 256.5 million Btu per hour (MMBtu/hour) while being fueled by new No. 2 fuel oil. This combustion turbine is used as a peaking unit during peak demand times, during emergencies, and during controls testing, to run a nominal 14 MW generator. Emissions from the combustion turbine are uncontrolled. Commercial operation began in January 1969.

{Permitting notes: This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required. This emissions unit is not subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines. This combustion turbine has its own stack.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity. The maximum operation heat input rates are as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
-007	256.5	New No. 2 fuel oil

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

D.2. Emissions Unit Operating Rate Limitation After Testing. See **Specific Condition D.13.**

[Rule 62-297.310(2), F.A.C.]

D.3. Methods of Operation - Fuels. Only new No. 2 fuel oil shall be fired in the combustion turbine.

[Rules 62-4.160(2) and 62-213.440(1), F.A.C.]

D.4. Hours of Operation. This emissions unit may operate continuously, i.e., 8,760 hours/year.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AO29-252615]

Emission Limitations and Standards

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

D.5. Visible Emissions. Visible emissions shall not be equal to or greater than 20 percent opacity.

[Rule 62-296.320(4)(b)1., F.A.C.]

D.6. Not federally enforceable. Sulfur Dioxide - Sulfur Content. The sulfur content of the new No. 2 fuel oil shall not exceed 0.5 percent, by weight.

[Requested in initial Title V permit application received June 14, 1996; and AO29-252615]

Excess Emissions

D.7. Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

D.8. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

D.9. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor upon each fuel delivery.

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

D.10. 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.

(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), F.A.C.]

Test Methods and Procedures

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit. }

D.11. Visible Emissions. The test method for visible emissions shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.

[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

D.12. Sulfur Dioxide - sulfur content. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91 or the latest edition of the above ASTM methods.

[Rules 62-213.440 and 62-297.440, F.A.C.]

D.13. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions 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.

[Rules 62-297.310(2), F.A.C.]

D.14. Applicable Test Procedures.

(a) Required Sampling Time.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and

thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4)(a)2.c., F.A.C.]

D.15. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) **General Compliance Testing.**

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

(b) **Special Compliance Tests.** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may 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.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; SIP approved; and, AO29-252615]

D.16. Visible Emissions Testing - Annual. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

c. only liquid fuels for less than 400 hours per year.

[Rules 62-297.310(7)(a)4. & 8., F.A.C.]

Recordkeeping and Reporting Requirements

D.17. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Environmental Protection Commission of Hillsborough County in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Environmental Protection Commission of Hillsborough County.

[Rule 62-210.700(6), F.A.C.]

D.18. The owner or operator shall notify the Environmental Protection Commission of Hillsborough County, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

[Rule 62-297.310(7)(a)9., F.A.C.]

D.19. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Environmental Protection Commission of Hillsborough County on the results of each such test.

(b) The required test report shall be filed with the Environmental Protection Commission of Hillsborough County as soon as practical but no later than 45 days after the last sampling run of each test is completed.

[Rule 62-297.310(8), F.A.C.]

Reasonable Assurances

D.20. A statement of the gas turbine new No. 2 fuel oil firing rate (gallons/hour) and corresponding heat input rate (MMBTU/hour) during the test period shall be included with each test report. Failure to submit this information with the test report may fail to provide reasonable assurance of compliance.

[Rule 62-4.070(3), F.A.C.]

D.21. In order to document continuing compliance with **Specific Condition No. D.6.**, records shall be maintained of the sulfur content, in % by weight, of new No. 2 fuel oil delivered for use in this combustion turbine. On the basis of the requirements of Department of Agriculture and Consumer Services Rule 5F-2001 (which requires that No. 2 oil sold in Florida have a maximum sulfur content not to exceed 0.5%), reasonable assurance that the sulfur content requirement is being met can also be provided through vendor supplied documentation that the fuel oil delivered for use in the gas turbine meets the above specifications for No. 2 fuel oil. These records shall be recorded in a permanent form suitable for inspection by the Environmental Protection Commission of Hillsborough County upon request, and shall be retained for at least a five year period.

[Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.]

D.22. In order to document compliance with **Specific Condition No. D.5.**, the permittee shall maintain a record of the combustion turbine operating hours. These records shall be recorded in a permanent form suitable for inspection by the Environmental Protection Commission of Hillsborough County upon request, and shall be retained for at least a five year period.

[Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.]

Subsection E. This section addresses the following emissions unit.

E.U.

ID No. **Brief Description**
 -008 Gannon Station Coal Yard

For the operation of a bituminous coal yard serving the Gannon Station boiler units 1 through 6, yard activities includes barge (East and West) and railcar unloading of coal, truck unloading of limestone or iron ore, and transfer and storage of these materials. The iron ore is shipped, stored and handled in the same manner as limestone. Particulate control media and other yard activity parameters are listed below:

<u>Source Designator</u>	<u>Particulate Control Method</u>	<u>Efficiency Rating at Design Capacity</u>	<u>Maximum Design Material Handling Rate (TPH)</u>
Barge to East Grab Bucket	Grab Bucket	----	1500
East Grab Bucket to East Hopper	Side Enclosure	25%	1500
Barge to West Continuous Unloader	Enclosure	40%	1500
Barge to West Grab Bucket	Grab Bucket	----	1500
West Grab Bucket to West Hopper	Side Enclosure	25%	1500
East Hopper to Feeder	----	----	1500
West Hopper to Feeder	----	----	1500
Continuous System to Feeder	Enclosure	70%	1500

gone

7

Will submit letter addressing changes

East/West Feeder to Conveyor B	Enclosure	50%	1500
Continuous System Feeder to Conveyor B	Enclosure	70%	1500
Conveyor B to Conveyor C	Enclosure	50%	3000
Conveyor C to Conveyor D1/D2	Enclosure & Wet Sprays	95%	1500
Railcar to Hopper	Enclosure (two sides open)	40%	1500
Hopper to Feeder	Enclosure	50%	1500
Feeder to Conveyor L	Enclosure	50%	1500
Conveyor L to Conveyor D1/D2	Enclosure	95%	1500
Conveyor D1/D2 to Conveyor M1/M2	Enclosure & Wet Sprays	95%	1500
Conveyor M1/M2 to Conveyor E1/E2	Enclosure & Wet Sprays	95%	1500
Conveyor E1/E2 to Stockpile	----	----	1500
Live Coal Stockpile	Moisture Content (approximately 8-11%)	50%	----
Dead Coal Stockpile	Moisture Content (approximately 8-11%) & Compaction	70%	----

Live Limestone Stockpile	----	----	----
Reclaim Pile to Conveyors F1/F2/F3/F4	Enclosure	85%	1600
Conveyors F1/F2/F3/F4 to Conveyors G1/G2	Enclosure & Wet Sprays	95%	1600
Conveyors G1/G2 to Hammermill Crushers	Enclosure	70%	1600
Hammermill Crushers to Conveyor H1/H2	Enclosure & Wet Sprays	70%	1600
Conveyors H1/H2 to Conveyor J1/J2	Enclosure	70%	1600
Conveyor J1/J2	Enclosure	70%	1600
Conveyor D1/D2	Enclosure & Wet Sprays	95%	1500
Vehicular Entrainment	----	----	----
Stockpile Maintenance	Moisture Content (approximately 8 - 11%)	50%	----

{Permitting note: This emissions unit is regulated under Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operation; Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter.}

The following specific conditions apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity. The maximum permitted process rate is 2.85 million tons/year. [Rules 62-4.160(2), and 62-210.200 (PTE), F.A.C.]

E.2. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200, F.A.C., P.T.E.]

Emission Limitations and Standards

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

E.3. Visible Emissions. Visible emissions generated by fugitive or unconfined particulate matter from coal handling systems and storage shall not exceed 5% opacity. [Rule 62-296.11(2)(a), F.A.C.]

E.4. Particulate Matter. Particulate matter emissions shall not exceed 1.43 lbs/hr and 0.51 TPY. [AC29-152987]

Test Methods and Procedures

{Permitting note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit. }

E.5. A thirty (30) minute visible emissions test shall be performed on the following material transfer operations within 60 days prior to or on December 31:

- A. The east bucket to the east hopper
- B. The west bucket to the west hopper
- C. The railcar to the hopper
- D. Either the conveyor E1 or E2 to their respective stockpiles where the initial free fall is at least 30 feet
- E. The hammermill crusher to either the conveyor H1 and H2
- F. The conveyors D1 or D2 to either conveyor G1 and G2
- G. Either the conveyor J1 or J2 to their respective bunkers

[Rule 62-297.310(4)(a)2., F.A.C.]

E.6. The test method for visible emissions shall be determined using EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.

[Rules 62-204.800, 62-297.310(7)(a)4., and 62-297.400, F.A.C.]

E.7. Water sprays or chemical wetting agents and stabilizers are acceptable methods to be used on both live and dead coal storage piles as necessary to maintain an opacity of less than or equal to 5%. Other appropriate methods may be applied to maintain this opacity, after they are approved by the Department.

[AC 29-114676]

Monitoring of Operations

E.8. Operation and Maintenance Plan for Particulate Control:

A. Process Parameters:

1. Operation schedule: 8760 hours per year
2. Equipment Data:
 - Conveyor Hoods: corrugated Aluminum
 - Transfer Point Enclosures: Carbon Steel
3. Wet Dust Suppression:
 - Manufacturer: Martin Marietta

B. Inspection and Maintenance Procedures:

The coal yard particulate control equipment receive regular preventative maintenance as follows:

Conveyor Enclosures:

1. Daily random visual inspections of conveyor hoods.
2. Daily random visual inspection of the transfer points chute work

Dust Suppression System:

1. Quarterly inspection of system for water leaks.
2. Quarterly inspection of spray nozzles.

The pumps, tanks, etc., that make-up the dust suppression system undergo normal maintenance including lubrication, flushing, and draining.

[Rule 62-296.700, F.A.C. and Application for Renewal, July 16, 1992]

Recordkeeping and Reporting Requirements

E.9. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Environmental Protection Commission of Hillsborough County on the results of each such test.

(b) The required test report shall be filed with the Environmental Protection Commission of Hillsborough County as soon as practical but no later than 45 days after the last sampling run of each test is completed.

[Rule 62-297.310(8), F.A.C.]

E.10. Operation and Maintenance. Records of inspections, maintenance, and performance parameters shall be retained for a minimum of five years and shall be made available to the Environmental Protection Commission of Hillsborough County upon request.

[Rules 62-213.440(1)(b)2.b. and 62-296.700(6)(e), F.A.C.]

E.11. The permittee shall provide timely notification to the Environmental Protection Commission of Hillsborough County prior to implementing any changes that may result in a modification to this permit. The changes may include, but are not limited to, the following, and may also require prior authorization before implementation:

A. Alteration or replacement of any equipment* or parameter listed in the description.

B. Installation or addition of any equipment* which is a source of air pollution.

C. Any changes in the method of operation, raw materials, products or fuels.

* Not applicable to normal maintenance and repairs, and vehicles used for transporting material.

[Rule 62-4.070(3), F.A.C., Rule 62-210.300, F.A.C.]

E.12. The permittee shall notify the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted.

[Rule 297.310(7)(a)9., F.A.C.]

Reasonable Assurances

E.13. All controls associated with the transfer points (i.e., the grab buckets, the windshield, the enclosures and the wet spray systems) shall be maintained to the extent that the capture efficiencies credited will be achieved.

[Rule 62-4.070(3), F.A.C., AO29-216480]

E.14. Dead coal storage piles shall not be used in day to day activities. Their use shall be restricted to those times when normal deliveries cannot supply boiler requirements.
[AC 29-114676]

E.15. The west coal unloading system shall consist of two separate barge unloading systems. No more than two of the three barge unloading systems at the barge unloading facility shall be in operation at any time.
[Rule 62-4.070(3), F.A.C., AO29-216480]

E.16. All compliance testing shall be conducted during normal operation and at the maximum material (including limestone or iron ore where applicable) transfer rate attainable during the test period. Actual material handling rates will be determined using the totalizer readings obtained from scales located on C, L, and H conveyors. The readings from these scales will be recorded at the start and finish of the visible emissions test. The difference between the value recorded divided by the test duration will be the value used to represent the material handling rate. Alternatively, values from the circular chart recorders located in the coal field control room will be used in the event a problem with a scale totalizer arises. The test result shall indicate if iron ore has been included in the corresponding material transfer rate. Failure to include the actual process or production rate in the results may invalidate the test.
[Rule 62-4.070(3), F.A.C. and AO29-216480]

Subsection F. This section addresses the following emissions unit.

E.U.

ID No. Brief Description

-009 Unit 4 Economizer Ash Silo with Baghouse

EU long term reserved

For the operation of the F.J. Gannon Station Unit 4 Economizer Ash Handling System and Silo, economizer ash collected in the economizer section of the boiler is either re-injected into the boiler or pneumatically conveyed to a 16 ft. diameter, 20 ft. high silo at a maximum rate of 1500 lbs./hr. The ash in the silo is gravity fed by tubing into closed tanker trucks for transport to an offsite consumer. Particulate emissions generated during the loading of the silo are controlled by an 830 ACFM Mikropul Corporation Model 365-10-30 Baghouse.

{Permitting note: This emissions unit is regulated under Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operation; Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter. }

The following specific conditions apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

F.1. Permitted Capacity. The maximum permitted operation rate is 1,500 lbs./hr. [Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C.]

Emission Limitations and Standards

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

F.2. Visible Emission. Visible emissions shall not exceed 5% opacity. [Rule 62-296.711(2)(a), F.A.C.]

F.3. The maximum allowable emissions for this baghouse, based on a design flow of 486 DSCFM (830 ACFM), shall not exceed:

<u>Pollutant</u>	<u>lbs./hr.</u>	<u>Tons/yr.</u>	<u>Standard</u>
Particulate Matter	0.13	0.56	0.03 grains/dscf

[Rule 62-296.711(2)(b), F.A.C.]

Test Methods and Procedures

{Permitting note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit. }

F.4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and [Rule 62-297.310(7)(a)4., F.A.C.]

Monitoring of Operations

F.5. Operation and Maintenance Plan for Particulate Control:

A. Process Parameters:

1. Source Designators: Economizer Ash Silo
2. Baghouse Manufacturer: Micropul Corporation
3. Model Name and Number: 365-10-30
4. Design Flow Rate: 830 ACFM
5. Efficiency Rating at Design Capacity: 99.9%
6. Pressure Drop: 6 in. H₂O max.
7. Air to Cloth Ratio: 2:1
8. Bag Weave: not Specified
9. Bag Material: Nomex
10. Bag Cleaning Conditions: Pulse Jet @ 100 psig.
11. Gas Flow Rate: 830 ACFM
12. Gas Temperatures: inlet; 350 °F; outlet; 350 °F
13. Stack Height Above Ground: 72 Ft.
14. Exit Diameter: 8 in.
15. Exit Velocity: 21 fps
16. Water vapor Content: 29%
17. Process Controlled by Collection Systems: Fly Ash Handling
18. Material Handling Rate: 1500 lbs./hr.

B. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Daily:

1. Check pressure drop and operation of manometer at each shift change (three times daily)
2. Observe stack (visual), and change filter bags as necessary. Document date and number of bags replaced.
3. Walk through system listening for proper operation (audible leaks, proper fan and motor functions, bag cleaning systems, etc.).
4. Note any unusual occurrence in the process being ventilated.
5. Observe all indicators on control panel for abnormal operation.
6. Check reverse air pressure.
7. Assure that dust is being removed from system. Unplug hopper if required.

[Rule 62-296.700(6)(c), F.A.C.]

Reasonable Assurances

F.6. Testing of emissions must be accomplished at 90 - 100% of the maximum electrical generating capacity (normally 187 MW) of Unit 4, with 100% of the economizer ash available directed to the silo. The actual MW generation rate shall be specified in each test report. Failure to include the actual generating rate in the report may invalidate the test.
[Rules 62-4.070(3) and 62-297.310(2), F.A.C.]

F.7. These emissions units are also subject to conditions contained in **Subsection K. Common Conditions.**

Subsection G. This section addresses the following emissions units.

E.U.

ID No. Brief Description

-010 Fly Ash Silo (No. 1) with Baghouse
-012 Pugmill and Truck Loading

} modification w/ an chute

For the operation of F.J. Gannon Station Units 5 and 6 Fly Ash Silo with baghouse and pugmill, fly ash that is collected in the hoppers of the electrostatic precipitators of Units 5 and 6 is pneumatically conveyed to a 25 foot diameter, 50 foot high silo. The fly ash in the silo is gravity fed by chute into enclosed tanker trucks or to a pugmill where it is "conditioned" by wetting with water and gravity fed by chute into open bed trucks. The fly ash is then transported to an off-site consumer. Particulate emissions generated during the filling of the silo are controlled by a 11,300 ACFM United States Filter Corporation Mikro-Pulsaire Model 1F3-24 baghouse.

{Permitting note: This emissions unit is regulated under Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operation; Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

G.1. Permitted Capacity. The maximum permitted operation rate is 13.05 ton/hour. [Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C.]

Emission Limitations and Standards

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

G.2. Visible Emission. Visible emissions shall not exceed 5% opacity. [Rule 62-296.711(2)(a), F.A.C.]

G.3. Particulate Matter. Total allowable particulate matter emissions based on a design flow rate of 11,300 ACFM shall not exceed 2.9 pounds/hour, 12.7 tons/year; 0.03 grains/dscf. [Rule 62-296.711(2)(b), F.A.C.]

Test Methods and Procedures

{Permitting note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit. }

G.4. Test the emissions from the fly ash silo/baghouse and *truck loading annually for particulate matter and visible emissions within 60 days prior to or on March 22.

*Visible emissions only
[Rule 62-297.310, F.A.C.]

Monitoring of Operations

G.5. Operation and Maintenance Plan for Particulate Control:

A. Process Parameters:

1. Source Designators: Units 5 and 6 Fly Ash Silo
2. Baghouse Manufacturer: United States Filter Corporation
3. Model Name and Number: Mikro-Pulsaire Unit #1F3-24
4. Design Flow Rate: 11,300 ACFM
5. Efficiency Rating at Design capacity: 99.9%
6. Pressure Drop: 5 in. water (maximum)
7. Air to Cloth Ratio: 5:1
8. Bag Material: Polyester HCE
9. Filter Cleaning Method: Pulse Jet @ 100 psig
10. Gas Flow Rate: 11,300 ACFM
11. Gas Temperature: inlet and outlet; 300°F
12. Stack Height Above Ground: 104 feet
13. Exit Diameter: 18 in. X 26 in.
14. Exit Velocity: 58 fps
15. Process controlled by Collection System: Fly Ash Material Handling
16. Material Handling Rate: Calculated to be 13.05 ton/hour Fly Ash

B. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Daily:

1. Baghouse pressure drop - inspect the manometer at each change in shift (3 time daily). Log information. Change filter bags if necessary.
2. Visually inspect baghouse for abnormal emissions.

3. Walk through system listening for proper operation (audible leaks, proper fan and motor functions, bag cleaning etc.)
4. Observe indicators on control panel for abnormal operating conditions.
5. Unplug hopper if necessary.

[Rule 62-296.700(6), F.A.C.]

Reasonable Assurances

G.6. All compliance tests will be conducted under the following conditions:

- A. Conveyance blower will be turned off at least 1 hour prior to the test to allow an adequate build-up of fly ash in the precipitator hoppers.
- B. All conveyance hoppers will be operational during tests.
- C. All fly ash will be directed to the silo, no re-injection of fly ash to the boiler system will occur during the tests.
- D. Both boilers shall be operational during the tests.

[Rule 62-4.070(3), F.A.C.]

G.7. These emissions units are also subject to conditions contained in **Subsection K. Common Conditions.**

Subsection H. This section addresses the following emissions unit.

E.U.

ID No. Brief Description

-011 Units 1-4 Fly Ash Silo (No. 2) with baghouse

For the operation of F.J. Gannon Station Units 1-4 Fly Ash Silo with baghouse, fly ash that is collected in the hoppers of the electrostatic precipitators of Units 1-4 is pneumatically conveyed to a 30 foot diameter, 45.5 foot high silo. The fly ash in the silo is gravity fed by tubing into enclosed tanker trucks for transport to an off-site consumer. Particulate emissions generated during the filling of the silo are controlled by a 4,690 ACFM Allen-Sherman-Hoff Corporation Flex Kleen 84 WRW C112IIG baghouse system which is comprised of two (2) bag filters with three (3) common stacks.

{Permitting note: This emissions unit is regulated under Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operation; Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter. }

The following specific conditions apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

H.1. Permitted Capacity. The maximum permitted operation rate is 14.5 ton/hour. [Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C.]

Emission Limitations and Standards

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

H.2. Visible Emission. Visible emissions shall not exceed 5% opacity. [Rule 62-296.711(2)(a), F.A.C.]

H.3. Particulate Matter. Total allowable particulate matter emissions based on a design flow rate of 4,696 ACFM shall not exceed 1.2 pounds/hour, 5.3 tons/year, 0.03 grains/dscf. [Rule 62-296.711(2)(b), F.A.C.]

Test Methods and Procedures

{Permitting note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

H.4. Test the emissions from the fly ash silo annually for particulate matter and visible emissions within 60 days prior to or on March 22.

[Rule 62-297.310, F.A.C.]

Monitoring of Operations

H.5. Operation and Maintenance Plan for Particulate Control:

A. Process Parameters:

1. Source Designators: Units 1-4 Fly Ash Silo
2. Baghouse Manufacturer: Allen-Sherman-Hoff Corporation
3. Model Name and Number: Flex Kleen 84 WRW C112IIG
4. Design Flow Rate: 4,696 ACFM
5. Efficiency Rating at Design capacity: 99.9%
6. Pressure Drop: 8 in. water (maximum)
7. Air to Cloth Ratio: 2:1
8. Bag Material: Polyester HCE
9. Filter Cleaning Method: Pulse Jet @ 100 psig
10. Gas Flow Rate: 4,696 ACFM
11. Gas Temperature: inlet, 300°F , Outlet: 350°F
12. Stack Height Above Ground: 3 @ 107 feet
13. Exit Diameter: 3 @ 12 in.
14. Exit Velocity: 33 fps
15. Process controlled by Collection System: Fly Ash Material Handling
16. Material Handling Rate: Calculated to be 14.5 ton/hour Fly Ash

B. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Daily:

1. Baghouse pressure drop - inspect the manometer at each change in shift (3 time daily). Log information. Change filter bags if necessary.
2. Visually inspect baghouse for abnormal emissions.
3. Walk through system listening for proper operation (audible leaks, proper fan and motor functions, bag cleaning etc.)

4. Observe indicators on control panel for abnormal operating conditions.
5. Unplug hopper if necessary.

[Rule 62-296.700(6), F.A.C.]

Reasonable Assurance

H.6. All compliance tests will be conducted under the following conditions:

- A. Conveyance blower will be turned off at least 1 hour prior to the test to allow an adequate build-up of fly ash in the precipitator hoppers.
- B. All conveyance hoppers will be operational during tests.
- C. All fly ash will be directed to the silo, no re-injection of fly ash to the boiler system will occur during the tests.
- D. At least 3 of the 4 boilers shall be operational during the tests.

[Rule 62-4.070(3), F.A.C.]

H.7. These emissions units are also subject to conditions contained in **Subsection K. Common Conditions.**

Subsection I. This section addresses the following emissions units.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-013	Unit No. 1 Bunker with Roto-Clone
-014	Unit No. 2 Bunker with Roto-Clone
-015	Unit No. 3 Bunker with Roto-Clone
-016	Unit No. 4 Bunker with Roto-Clone
-017	Unit No. 5 Bunker with Roto-Clone
-018	Unit No. 6 Bunker with Roto-Clone

For the operation of F.J. Gannon Station Units 1-6 coal bunkers with an exhaust fan/cyclone collector (Roto-Clone) controlling dust emissions from each unit's respective bunker, two moving transfer stations via their respective conveyor belts route coal through enclosed chutes to each of the six bunkers. Coal bunkers No. 1-4 and 6 are each equipped with a 9,600 ACFM American Air Filter Company Type D Roto-Clone to abate dust emissions during ventilation. Coal bunker No. 5 is equipped with a 5,400 ACFM Type D Roto-Clone. A number of vent pipes convey air from each bunker to a Roto-Clone during particulate removal. Particulate matter removed by the Roto-Clones is returned to a coal bunker via a hopper and return line. Units 1-6 coal bunkers are situated in a west to east fashion. Unit 1 coal bunker is located furthest to the west and Unit No. 6 coal bunker furthest to the east.

{Permitting note: This emissions unit is regulated under Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operation; }

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

I.1. Permitted Capacity. The maximum operation rate is 1,600 tons/hour.
[Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C.]

Emission Limitations and Standards

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

I.2. Particulate Matter. Since a source having emissions of less than 1.0 ton/year is exempt from the provisions of particulate RACT, the maximum allowable particulate matter emission rate from each of the six coal bunkers shall not exceed 0.99 ton/year.

Also, the maximum allowable particulate matter emission rate from each of the six coal bunkers shall not exceed 0.19 pounds/hour.

[Rule 62-296.700(2)(c), F.A.C.]

I.3. Visible Emissions. Visible emissions from each of the six coal bunkers shall not be equal to or greater than 20% opacity.

[Rule 62-296.320(4)(b)1., F.A.C.]

Test Methods and Procedures

{Permitting note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit. }

I.4. Test the emissions from each of the six coal bunkers annually for particulate matter and visible emissions within 60 days prior to or on March 29.

[Rule 62-297.310, F.A.C.]

*Test every 5 years,
equal to when renewal
of permits*

Monitoring of Operations

I.5. Operation and Maintenance Plan for Particulate Control:

A. Process Parameters:

1. Source Designators: Units 1-6 Coal Bunkers
2. Baghouse Manufacturer: American Air Filter Company
3. Model Name and Number: Roto-Clone Dynamic Precipitator Type D
4. Design Flow Rate: 9,600 ACFM, Units 1-4 and 6; 5,400 ACFM, Unit 5
5. Efficiency Rating at Design Capacity: 75.0%
6. Process Controlled by Collection System: Unit 1-6 Coal Bunkers
7. Coal Handling Rate: 1,600 tons/hour for each of the six coal bunkers

B. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Quarterly:

1. Motor Inspection

Annually:

1. Piping inspection
2. Fan inspection

[Rule 62-4.070(3), F.A.C.]

Tampa Electric Company
F. J. Gannon Station
Page 43

DRAFT Permit No.: 0570040-002-AV

I.6. These emissions units are also subject to conditions contained in Subsection K. Common Conditions.

Subsection J. Common Conditions.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-001	Unit No. 1-Fossil Fuel-Fired Steam Generator
-002	Unit No. 2-Fossil Fuel-Fired Steam Generator
-003	Unit No. 3-Fossil Fuel-Fired Steam Generator
-004	Unit No. 4-Fossil Fuel-Fired Steam Generator
-005	Unit No. 5-Fossil Fuel-Fired Steam Generator
-006	Unit No. 6-Fossil Fuel-Fired Steam Generator

The following conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

J.1. Hours of Operation. These emissions units are allowed to operate continuously, i.e., 8,760 hours/year.

[Rules 62-4.160(2) and 62-210.200, F.A.C., (PTE)]

Emission Limitations and Standards

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

J.2. Particulate Matter. Particulate matter emissions shall not exceed 0.1 pounds per million Btu heat input, as measured by applicable compliance methods.

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

J.3. Particulate Matter - Soot Blowing and Load Change. Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

[Rule 62-210.700(3), F.A.C.]

J.4. Sulfur Dioxide. No emissions unit with a nameplate generating capacity of greater than 120 MW which commenced operation prior to November 1, 1967, shall emit more than 2.4 pounds of sulfur dioxide per million Btu heat input on a weekly average nor shall

a group of such emissions units located on one or more contiguous or adjacent properties and which are under common control emit more than 10.6 tons per hour of sulfur dioxide on a weekly average. A plan for assuring compliance with Florida Ambient Air Quality Standards will be incorporated into the revised operating permit for such emissions units. Compliance with the SO₂ emission standards set for the Gannon Station shall be achieved in part by adhering to the Francis J. Gannon Sulfur Dioxide Regulatory Compliance Plan submitted previously. **See Appendix F.**
[Rule 62-296.405(1)(c)2.a., F.A.C.]

J.5. Not federally enforceable. Sulfur Dioxide - Sulfur Content. The sulfur content of the new No. 2 fuel oil shall not exceed 0.5 percent, by weight.
[Requested in initial Title V permit application received June 14, 1996; and AO29-252615]

J.6. Visible Emissions. Visible emissions shall not exceed 20 percent opacity, except for one two-minute period per hour during which opacity shall not exceed 40 percent.
[Rule 62-296.405(1)(a), F.A.C.]

J.7. Visible Emissions - Soot Blowing and Load Change. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.
[Rule 62-210.700(3), F.A.C.]

Excess Emissions

J.8. Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.
[Rule 62-210.700(2), F.A.C.]

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

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

Test Methods and Procedures

J.11. Particulate Matter The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature at no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen base F-factor computed according to EPA Method 19 is used in lieu of heat input. Acetone wash shall be used with EPA Methods 5 or 17.

[Rules 62-213.440, 62-296.405(1)(e)2., 62-297.310 and 62-297.401, F.A.C.]

J.12. Sulfur Dioxide The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B or 6C, incorporated and adopted by reference in Chapter 62-297, F.A.C. Fuel sampling analysis may be used as an alternate sampling procedure if such a procedure is incorporated in the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedances of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards.

[Rules 62-296.405(1)(e)3., F.A.C.]

J.13. Sulfur Dioxide - sulfur content The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91 or the latest editions.

[Rules 62-213.440 and 62-297.440, F.A.C.]

J.14. Visible Emissions The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C.

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

J.15. DEP Method 9 The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.

2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.

b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

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

[Rules 62-297.310 and 62-297.401, F.A.C.]

J.16. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

J.17. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of

the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions 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. [Rules 62-297.310(2) & (2)(b), F.A.C.]

J.18. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

J.19. Applicable Test Procedures.

(a) Required Sampling Time.

1. 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.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached.

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers

by a flexible tube.
[Rule 62-297.310(4), F.A.C.]

J.20. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

J.21. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate; or
b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
- c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or

solid fuel, other than during startup, for a total of more than 400 hours.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may 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.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; SIP approved]

Monitoring of Operations

J.22. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor upon each fuel delivery.

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

J.23. 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.

(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), F.A.C.]

Continuous Monitoring Requirements

J.24. Tampa Electric Company shall operate, calibrate, and maintain a continuous monitoring system for continuously monitoring opacity.
[Rule 62-296.405(1)(f), F.A.C.]

Recordkeeping and Reporting Requirements

J.25. Quarterly Reporting. The owners or operators of facilities for which monitoring is required shall submit to the Environmental Protection Commission of Hillsborough County a written report of emissions in excess of emission limiting standards as set forth in **Specific Conditions J.2.** through **J.7.**, for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the source for a period of five years.
[Rules 62-213.440(1)(b)2.b. and 62-296.405(1)(g), F.A.C.]

J.26. Quarterly Reporting - SO₂ A quarterly report summarizing the information necessary to determine compliance with the SO₂ standards for each unit and the facility shall be submitted within 45 days to the Environmental Protection Commission of Hillsborough County following a calendar quarter. The sulfur variability study will be performed on the facility during the last quarter of each year. The results shall be submitted with the quarterly report for that period.
[Rule 62-296.405(1)(c)2.a., F.A.C.]

J.27. The permittee shall notify the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted.
[Rule 297.310(7)(a)9., F.A.C.]

J.28. Operation and Maintenance. Records of inspections, maintenance, and performance parameters shall be retained for a minimum of five years and shall be made available to the Environmental Protection Commission of Hillsborough County upon request.
[Rules 62-213.440(1)(b)2.b. and 62-296.700(6)(e), F.A.C.]

J.29. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Environmental Protection Commission of Hillsborough County on the results of each such test.
- (b) The required test report shall be filed with the Environmental Protection Commission

of Hillsborough County as soon as practical but no later than 45 days after the last sampling run of each test is completed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

J.29. Malfunction Reporting. In case of excess emissions resulting from malfunctions, Tampa Electric Company shall notify the Environmental Protection Commission of Hillsborough County in accordance with 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Environmental Protection Commission of Hillsborough County.

[Rule 62-210.700(6), F.A.C.]

Reasonable Assurances

J.30. The permittee shall install flow meters to monitor the new No. 2 fuel oil usage.

[Rule 62-4.070(3), F.A.C.]

J.31. Visible emissions testing shall be conducted simultaneously with particulate matter testing unless visible emissions testing is not required.

[Rule 62-4.070(3), F.A.C.]

Miscellaneous Conditions

J.32. Slag Tanks. The permittee is authorized to bypass the electrostatic precipitator(s) and allow venting of slag tanks directly to the atmosphere. The following conditions shall apply:

1. Venting of the slag tanks shall be performed only for purposes of worker safety during maintenance or to prevent equipment damage due to loss of flow through the normal duct system to the electrostatic precipitator.
2. The permittee shall notify the Environmental Protection Commission of Hillsborough County should a situation develop which requires the venting of more than one slag tank volume per each emergency maintenance job. The permittee shall make a good faith effort to correct the situation in a timely manner, not to exceed two hours.
3. The permittee shall provide the Environmental Protection Commission of

Hillsborough County with a copy of vessel entry procedures to be used when the slag tanks are serviced. The procedure shall include assurances that the bypass vent will be closed after a venting incident takes place.

4. The permittee shall maintain a log of dates and duration of tank venting.
[Rule 62-210.700(5) F.A.C.]

J.33. Boiler Cleaning Waste. The owner or operator is allowed to inject nonhazardous boiler chemical cleaning waste, generated on-site, into the boiler during normal operation as a routine maintenance procedure. The following conditions shall apply:

- a. Quantity Limitation: The input rate shall not exceed:
 - (1) 50 gal/min.
 - (2) 960,000 gallons during any 12 consecutive months.
- b. Operating Requirements: Boiler chemical cleaning waste that is deemed nonhazardous shall be burned only at normal source operating temperatures. Nonhazardous boiler chemical cleaning waste shall not be burned during periods of startup or shutdown.
- c. Testing Requirements: The owner or operator shall sample and analyze each batch of boiler chemical cleaning waste to be burned pursuant to 40 CFR 262.11. If the waste is determined to be hazardous, it will be managed in accordance with all applicable hazardous waste controls under 40 CFR 262.34, 40 CFR 265 Subpart I and 40 CFR 268.
- d. Record Keeping Requirements: The owner or operator shall obtain, make, and keep the following records related to the use of boiler chemical cleaning waste in a form suitable for inspection at the facility by the Department:
 - (1) The gallons of boiler chemical cleaning waste burned each month. (This record shall be completed no later than the fifteenth day of the succeeding month.)
 - (2) The total gallons of boiler chemical cleaning waste burned in the preceding consecutive 12-month period. (This record shall be completed no later than the fifteenth day of the succeeding month.)
 - (3) Results of analyses required above.

- e. Reporting Requirements: The owner or operator shall submit to the

Environmental Protection Commission of Hillsborough County, within thirty days of the end of each calendar quarter, the analytical results and the total amount of boiler chemical cleaning waste burned during the quarter.

The owner or operator shall submit, with the Annual Operation Report form, the analytical results and the total amount of boiler chemical cleaning waste burned during the previous calendar year.

[Rule 62-4.070(3), F.A.C., 40 CFR 262.11]

Subsection K. Common Conditions.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-009	Unit 4 Economizer Ash Silo with Baghouse
-010	Unit 5 and 6 Fly Ash Silo No. 1 with Baghouse
-011	Units 1-4 Fly Ash Silo with Baghouse (Fly Ash Silo No. 2)
-012	Pugmill and Truck Loading
-013	Unit No. 1 Coal Bunker with Roto-Clone
-014	Unit No. 2 Coal Bunker with Roto-Clone
-015	Unit No. 3 Coal Bunker with Roto-Clone
-016	Unit No. 4 Coal Bunker with Roto-Clone
-017	Unit No. 5 Coal Bunker with Roto-Clone
-018	Unit No. 6 Coal Bunker with Roto-Clone

The following conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

K.1. Hours of Operation. This emissions unit may operate continuously, i.e., 8,760 hours/year.
[Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C.]

Test Methods and Procedures

K.2. Due to the expense and complexity of conducting a stack test on a minor source of particulate matter, and because the fly ash silo is equipped with a baghouse emission control device, the Department, hereby establishes a visible emission limitation not to exceed an opacity of 5% in lieu of a particulate stack test.
[Rule 62-297.620(4), F.A.C.]

K.3. Compliance with the emission limitations of **Specific Condition No. K.2.** shall be determined using EPA Method 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C. The minimum requirements for stationary point source sampling and reporting shall be in accordance with Rule 62-296, F.A.C. and 40 CFR 60, Appendix A. The visible emissions compliance tests shall be conducted by a certified observer and be a minimum of 30 minutes in duration. The visible emission compliance tests on the truck loading shall alternate from year to year, so that over a two year period both conditioned and unconditioned fly ash loading will be tested.
[Rule 62-297.310(7)(a)4., F.A.C. and Rule 62-4.070(3), F.A.C.]

K.4. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions 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. [Rules 62-297.310(2) & (2)(b), F.A.C., AO29-250137]

K.5. Should the Department have reason to believe the particulate emission standard is not being met, the Department may require that compliance with the particulate emission standard be demonstrated by testing in accordance with Rule 62-297, F.A.C. [Rule 62-297.620(4), F.A.C.]

Recordkeeping and Reporting Requirements

K.6. Operation and Maintenance. Records of inspections, maintenance, and performance parameters shall be retained for a minimum of five years and shall be made available to the Environmental Protection Commission of Hillsborough County upon request. [Rules 62-213.440(1)(b)2.b. and 62-296.700(6)(e), F.A.C.]

K.7. The permittee shall notify the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted. [Rule 297.310(7)(a)9., F.A.C.]

K.8. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Environmental Protection Commission of Hillsborough County on the results of each such test.

(b) The required test report shall be filed with the Environmental Protection Commission of Hillsborough County as soon as practical but no later than 45 days after the last sampling run of each test is completed.

[Rule 62-297.310(8), F.A.C.]

Section IV. This section is the Acid Rain Part.

Operated by: Tampa Electric Company
ORIS code: 0646

Subsection A. This subsection addresses Acid Rain, Phase II.

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

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-001	Unit No. 1 Fossil Fuel-Fired Steam Generator
-002	Unit No. 2 Fossil Fuel-Fired Steam Generator
-003	Unit No. 3 Fossil Fuel-Fired Steam Generator
-004	Unit No. 4 Fossil Fuel-Fired Steam Generator
-005	Unit No. 5 Fossil Fuel-Fired Steam Generator
-006	Unit No. 6 Fossil Fuel-Fired Steam Generator

A.1. The Phase II permit applications submitted for this facility, as approved by the Department, are a part of this permit. The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the applications listed below:

a. DEP Form No. 62-210.900(1)(a), dated 07/01/95.

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

A.2. Sulfur dioxide (SO₂) allowance allocations and nitrogen oxide (NO_x) requirements for each Acid Rain unit is as follows:

E.U. ID No.	EPA ID	Year	2000	2001	2002
-001	GB01	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	3812*	3812*	3812*
		NOx limit	**	**	**
-002	GB02	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	4387*	4387*	4387*
		NOx limit	**	**	**
-003	GB03	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	5615*	5615*	5615*
		NOx limit	**	**	**
-004	GB04	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	6171*	6171*	6171*
		NOx limit	**	**	**
-005	GB05	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	6482*	6482*	6482*
		NOx limit	**	**	**
-006	GB06	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	9996*	9996*	9996*
		NOx limit	**	**	**

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

**If applicable, by January 1, 1999, this Part will be reopened to add NOx requirements in accordance with the regulations implementing section 407 of the Clean Air Act.

A.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under

the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

3. Allowances shall be accounted for under the Federal Acid Rain Program.
[Rule 62-213.440(1)(c), F.A.C.]

A.4. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition 51., APPENDIX TV-1, TITLE V CONDITIONS}
[Rule 62-214.420(11), F.A.C.]

A.5. Comments, notes, and justifications:

a. The designated representative was changed by letter dated June 27, 1997.

{Permitting note: USEPA issues Acid Rain Phase I permits. The provisions of the Federal Acid Rain, Phase I permit govern the above listed emissions units through December 31, 1999. The provisions of the Phase II permit govern those emissions units from January 1, 2000 through the expiration date of this Title V permit.}

Appendix E-1, List of Exempt Emissions Units and/or Activities.

Tampa Electric Company
F. J. Gannon Station

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Full Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining whether a facility containing such emissions units or activities would be subject to any applicable requirements.

Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., are also exempt from the permitting requirements of Chapter 62-213, F.A.C., provided such emissions units and activities also meet the exemption criteria of Rule 62-213.430(6)(b), F.A.C. The below listed emissions units and/or activities are hereby exempt pursuant to Rule 62-213.430(6); F.A.C.

1. Vacuum pumps for labs
2. Lab equipment used for chemical or physical analyses
3. Brazing, soldering or welding equipment
4. Emergency generators
5. Fire and safety equipment
6. Surface coating
7. Space heating equipment (non-boilers)
8. Architectural (equipment) maintenance painting
9. Belt conveyors
10. Sand blasting and abrasive grit blasting where temporary total enclosures are used to contain particulates
11. Degreasing units using heavier-than-air vapors exclusively, except any unit using or emitting any substance classified as a hazardous air pollutant
12. Molten sulfur storage in 4000 gallon tank

Table 1-1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company
F. J. Gannon

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
-001	Unit No. 1-Solid Fuel-Fired Steam Generator
-002	Unit No. 2-Solid Fuel-Fired Steam Generator

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions *		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
SO2	coal	8760	2.4 lb/MMBTU		3016.8	13213.6	62-296.405(1)(c)2.a., F.A.C.	III.J.4.
PM - SB	coal	1095	0.3 lb/MMBTU		377.1	688.2	62-210.700(3), F.A.C.	III.J.3.
PM - NSB	coal	7665	0.1lb/MMBTU				62-296.405(1)(b), F.A.C.	III.J.2.
SO2	sulfur content for No. 2 F.O.		0.5 % by weight					III.J.5.
VE - SB	coal	1095	60 % opacity (3 hrs in 24 hrs)				62-210.700(3), F.A.C.	III.J.7.
VE - NSB	coal	7665	20 % opacity				62-296.405(1)(a), F.A.C.	III.J.6.

Notes:

* The "Equivalent Emissions" listed are for informational purposes only.

[electronic file name: 05700401.xls]

Table 1-1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company
F. J. Gannon

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-003 Unit No. 3-Solid Fuel-Fired Steam Generator

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
SO2	coal	8760	2.4 lb/MMBTU		3837.6	16808.7	62-296.405(1)(c)2.a., F.A.C.	III.J.4.
PM - SB	coal	1095	0.3 lb/MMBTU		479.7	875.5	62-210.700(3), F.A.C.	III.J.3.
PM - NSB	coal	7665	0.1lb/MMBTU				62-296.405(1)(b), F.A.C.	III.J.2.
SO2	sulfur content for No. 2 F.O.		0.5 % by weight					III.J.5.
VE - SB	coal	1095	60 % opacity (3 hrs in 24 hrs)				62-210.700(3), F.A.C.	III.J.7.
VE - NSB	coal	7665	20 % opacity				62-296.405(1)(a), F.A.C.	III.J.6.

Notes:

* The "Equivalent Emissions" listed are for informational purposes only.

[electronic file name: 05700401.xls]

Table 1-1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company
F. J. Gannon

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-004 Unit No. 4-Solid Fuel-Fired Steam Generator

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
SO2	coal	8760	2.4 lb/MMBTU		4502.4	19720.5	62.296.405(1)(c)2.a, F.A.C.	III.J.4.
PM - SB	coal	1095	0.3 lb/MMBTU		562.8	1027.1	62-210.700(3), F.A.C.	III.J.3.
PM - NSB	coal	7665	0.1lb/MMBTU				62-296.405(1)(b), F.A.C.	III.J.2.
SO2	No. 2 F.O.		1.1 lb/MMBTU				1-3.63(c), EPCHC	III.B.3.
SO2	sulfur content for No. 2 F.O.		0.5 % by weight					III.J.5.
VE - SB	coal	1095	60 % opacity (3 hrs in 24 hrs)				62-210.700(3), F.A.C.	III.J.7.
VE - NSB	coal	7665	20 % opacity				62-296.405(1)(a), F.A.C.	III.J.6.
Arsenic	used oil	8760	5ppm				40 CFR 279.11	III.B.6.
Cadmium	used oil	8760	2ppm				40 CFR 279.11	III.B.6.
Chromium	used oil	8760	10ppm				40 CFR 279.11	III.B.6.
Lead	used oil	8760	100ppm				40 CFR 279.11	III.B.6.
Total Halogens	used oil	8760	1000ppm				40 CFR 279.11	III.B.6.
PCB's	used oil	8760	< 50ppm				40 CFR 279.11	III.B.6.

Notes:
* The "Equivalent Emissions" listed are for informational purposes only.

[electronic file name: 05700401.xls]

Table 1-1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company
F. J. Gannon

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-005 Unit No. 5-Solid Fuel-Fired Steam Generator

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
SO2	coal	8760	2.4 lb/MMBTU		5481.6	24009.4	62-296.405(1)(c)2.a., F.A.C.	III.J.4.
PM - SB	coal	1095	0.3 lb/MMBTU		685.2	1250.5	62-210.700(3), F.A.C.	III.J.3.
PM - NSB	coal	7665	0.1 lb/MMBTU				62-296.405(1)(b), F.A.C.	III.J.2.
SO2	sulfur content for No. 2 F.O.		0.5 % by weight					III.J.5.
VE - SB	coal	1095	60 % opacity (3 hrs in 24 hrs)				62-210.700(3), F.A.C.	III.J.7.
VE - NSB	coal	7665	20 % opacity				62-296.405(1)(a), F.A.C.	III.J.6.

Notes:

* The "Equivalent Emissions" listed are for informational purposes only.

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Table 1-1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company
F. J. Gannon

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-006 Unit No. 6-Solid Fuel-Fired Steam Generator

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
SO2	coal	8760	2.4 lb/MMBTU		9115.2	39924.6	62-296.405(1)(c)2.a., F.A.C.	III.J.4.
PM - SB	coal	1095	0.3 lb/MMBTU		1139.4	2079.4	62-210.700(3), F.A.C.	III.J.3.
PM - NSB	coal	7665	0.1lb/MMBTU				62-296.405(1)(b), F.A.C.	III.J.2.
SO2	sulfur content for No. 2 F.O.		0.5 % by weight					III.J.5.
VE - SB	coal	1095	60 % opacity (3 hrs in 24 hrs)				62-210.700(3), F.A.C.	III.J.7.
VE - NSB	coal	7665	20 % opacity				62-296.405(1)(a), F.A.C.	III.J.6.

Notes:

* The "Equivalent Emissions" listed are for informational purposes only.

[electronic file name: 05700401.xls]

Table 1-1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company
F. J. Gannon

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-007 Combustion Turbine

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
SO2	sulfur content for No. 2 F.O. No. 2 F.O.	8760	0.5 % by weight				62-296.320(4)(b)1., F.A.C.	III.D.6
VE		8760	20 % opacity					III.D.5.
Notes:								
* The "Equivalent Emissions" listed are for informational purposes only.								

[electronic file name: 05700401.xls]

Table 1-1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company
F. J. Gannon

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-008 Coal Yard

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
PM	coal	8760		1.43	0.51			III.E.4.
VE	coal	8760	5 % opacity					III.E.3.

Notes:
* The "Equivalent Emissions" listed are for informational purposes only.

[electronic file name: 05700401.xls]

Table 1-1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company
F. J. Gannon

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-009 Economizer Ash Silo No. 1 with Baghouse

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
PM	coal	8760	0.03 grains/dscf		0.13	0.56	62-296.711(2)(b), F.A.C.	III.F.3.
VE	coal	8760	5 % opacity				62-296.711(2)(a), F.A.C.	III.F.2.

Notes:
* The "Equivalent Emissions" listed are for informational purposes only.

[electronic file name: 05700401.xls]

Table 1-1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company
F. J. Gannon

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. Brief Description
-010 and -012 Economizer Ash Silo No. 1 with Baghouse/Truck Loading

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions *		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
PM	coal	8760	0.03 grains/dscf		2.9	12.7	62-296.711(2)(b), F.A.C.	III.G.3.
VE	coal	8760	5 % opacity				62-296.711(2)(a), F.A.C.	III.G.2.

Notes:
* The "Equivalent Emissions" listed are for informational purposes only.

[electronic file name: 05700401.xls]

Table 1-1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company
F. J. Gannon

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-011 Fly Ash Silo No. 2

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
PM	coal	8760	0.03 grains/dscf		1.2	5.3	62-296.711(2)(b), F.A.C.	III.H.3.
VE	coal	8760	5 % opacity				62-296.711(2)(a), F.A.C.	III.H.2.

Notes:
* The "Equivalent Emissions" listed are for informational purposes only.

[electronic file name: 05700401.xls]

Table 1-1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company
F. J. Gannon

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-013 - 018 Units 1 - 6 Coal Bunkers with six Roto-Clones

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
PM	coal	8760	0.19 lb/hr	0.99			62-296.700(2)(c), F.A.C.	III.1.2.
VE	coal	8760	20 % opacity				62-296.320(4)(b)1., F.A.C.	III.1.3.

Notes:

* The "Equivalent Emissions" listed are for informational purposes only.

[electronic file name: 05700401.xls]

Table 2-1, Summary of Compliance Requirements

Tampa Electric Company
F. J. Gannon Station

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-001 - 006 Unit Nos. 1-6 Solid Fuel-Fired Steam Generator

Pollutant Name or parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See permit Condition(s)
VE	coal	DEP Method 9	annual		1 hr	yes	III.J.14. & 24.
SO2	coal	EPA Methods 6, 6A, 6B, or 6C	annual		1 hr		III.J.12.
SO2 (S. Content)	No. 2 fuel oil	ASTM D 2622-92, ASTM D4294-90 or both ASTM D4057-88 and ASTM D129-91	each fuel delivery				III.J.13. & 22.
PM	coal	EPA Methods 5, 5B, 5F, or 17	annual		1 hr		III.J.11.

Notes:
*Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.
**CMS [=] continuous monitoring system

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Table 2-1, Summary of Compliance Requirements

Tampa Electric Company
F. J. Gannon Station

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. Brief Description
-007 Combustion Turbine

Pollutant Name or parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	Permit Condition(s)
VE SO2 (S. Content)	No. 2 fuel oil No. 2 fuel oil	EPA Method 9 ASTM D 2622-92, ASTM D4294-90 or both ASTM D4057-88 and ASTM D129-91	annual each fuel delivery		1hr		III.D.12 III.D.10. & 13

Notes:
*Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.
**CMS [=] continuous monitoring systems

[electronic file name: 05700402.xls]

Table 2-1, Summary of Compliance Requirements

Tampa Electric Company
F. J. Gannon Station

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-008 Coal Yard

Pollutant Name or parameter	Fuel(s)	Compliance Method	Testing Time	Frequency	Min. Compliance	CMS**	Permit Condition(s)
			Frequency	Base Date *	Test Duration		
VE on A,B,C,D E, F, and G of Conditon E.5.	coal	EPA Method 9	annual	31-Dec	30 min		III.E.6.
VE on storage piles	coal	water sprays wetting agents stabilizers					III.E.7.

Notes:
*Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.
**CMS [=] continuous monitoring systems

[electronic file name: 05700402.xls]

Table 2-1, Summary of Compliance Requirements

Tampa Electric Company
F. J. Gannon Station

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-009 Unit 4 Economizer Ash Silo with Baghouse

Pollutant Name or parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	Permit Condition(s)
VE	coal	EPA Method 9	annual		1hr		III.F.4. III.K.2. & 3.

Notes:
*Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.
**CMS [=] continuous monitoring systems

[electronic file name: 05700402.xls]

Table 2-1, Summary of Compliance Requirements

Tampa Electric Company
F. J. Gannon Station

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
-010	Units 5-6 Fly Ash Silo (No.1) with Baghouse
-012	Pugmill and Truck Loading

Pollutant Name or parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	Permit Condition(s)
VE	coal	EPA Method 9	annual	22-Mar	30min		III.G.4. III.K.2. & 3.

Notes:
 *Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.
 **CMS [=] continuous monitoring systems

Table 2-1, Summary of Compliance Requirements

Tampa Electric Company
F. J. Gannon Station

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-011 Units 1-4 Fly Ash Silo (No.2) with Baghouse

Pollutant Name or parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	Permit Condition(s)
VE	coal	EPA Method 9	annual	22-Mar	30min		III.H.4. III.K.2. & 3.

Notes:
*Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.
**CMS [=] continuous monitoring systems

Table 2-1, Summary of Compliance Requirements

Tampa Electric Company
F. J. Gannon Station

DRAFT Permit No.: 0570040-002-AV
Facility ID No.: 0570040

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
-013	Unit No. 1 Bunker with Roto-Clone
-014	Unit No. 2 Bunker with Roto-Clone
-015	Unit No. 3 Bunker with Roto-Clone
-016	Unit No. 4 Bunker with Roto-Clone
-017	Unit No. 5 Bunker with Roto-Clone
-018	Unit No. 6 Bunker with Roto-Clone

Pollutant Name or parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	Permit Condition(s)
VE	coal	EPA Method 9	annual	29-Mar	30min		III.I.4. III.K.2. & 3.

Notes:
 *Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.
 **CMS [=] continuous monitoring systems



RECEIVED
JUL 21 1997
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AIR REGULATION

July 18, 1997

Mr. Scott Sheplak, Jr., P.E.
Administrator-Title V Section
Florida Department of Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Via FedEx
Airbill No. 3793593031

**Re: Tampa Electric Company - Big Bend Station
Title V Application Submittal
Request for Additional Information
FDEP File No. 0570039-002-AV**

Dear Mr. Sheplak:

Tampa Electric Company (TEC) received the Florida Department of Environmental Protection's (FDEP) request for additional information for our Big Bend Station on February 13, 1997. TEC received an extension of time from your office until July 19, 1997 for submittal of our responses. With regards to the referenced request for additional information, please find enclosed four (4) copies of our responses along with updated electronic permit applications, new Responsible Official and Professional Engineer certifications. Also include in this package is one (1) hard copy of the Title V application for your use.

Please feel free to telephone me at (813) 641-5039, if you have any questions or require any clarification. Thank-you.

Sincerely,

Janice K. Taylor
Senior Engineer
Environmental Planning

Enclosures

EP\gm\JKT810

c: Cindy Phillips, FDEP-Tallahassee
Jerry Kissell, FDEP -SW District
Richard Kirby, EPCHC

TAMPA ELECTRIC COMPANY

P.O. BOX 111

TAMPA, FL 33601-0111

HILLSBOROUGH COUNTY 223-0800

OUTSIDE OF HILLSBOROUGH COUNTY 1-888-223-0800

[HTTP://WWW.TECOENERGY.COM](http://www.tecoenergy.com)

AN EQUAL OPPORTUNITY COMPANY



TAMPA ELECTRIC

July 18, 1997

Mr. Scott Sheplak, Jr., P.E.
Administrator-Title V Section
Florida Department of Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

RECEIVED
AUG 11 1997
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AIR REGULATION

Via FedEx
Airbill No. 3793593031

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Title V Application Submittal
Request for Additional Information
FDEP File No. 0570039-002-AV**

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Sincerely,

Janice K. Taylor
Senior Engineer
Environmental Planning

Enclosures

EP\gm\UKT810

c: Cindy Phillips, FDEP-Tallahassee
Jerry Kissell, FDEP -SW District
Richard Kirby, EPCHC

TAMPA ELECTRIC COMPANY
P.O. BOX 111
TAMPA, FL 33601-0111
HILLSBOROUGH COUNTY 223-0800
OUTSIDE OF HILLSBOROUGH COUNTY 1-888-223-0800
HTTP://WWW.TECOENERGY.COM
AN EQUAL OPPORTUNITY COMPANY



Cindy

File
Big Bend
Gannon
Hookers
FAC# ID 1050233
0570039
0570040
0570038

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JUL 02 1997
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AIR REGULATION

June 27, 1997

ATTN: Designated Representative
U.S. Environmental Protection Agency
Acid Rain Program (6204J)
401 "M" Street, SW
Washington, DC 20460

Certified Mail #P 404 702 928
Return Receipt Requested

**Re: Tampa Electric Company
Acid Rain Program
Allowance Transfer**

Dear Sir/Madam:

Please find enclosed Certification of Representation Forms for Tampa Electric Company's Acid Rain Program effected units Polk Power Station, Big Bend, F.J. Gannon and Hookers Point. Also included are affidavits of public notice given concerning this representation. The enclosed certification is per 40 CFR part 72 for the purpose of establishing Patrick A. Ho as Designated Representative and Authorized Account Representative and Hugh W. Smith as Alternate Designated Representative and Alternate Authorized Account Representative.

Should you have any questions regarding this information, please call me at (813) 641-5036.

Sincerely,

Patrick A. Ho
Tampa Electric Company
Designated Representative
Acid Rain Program

EP/gm/PJM034

Enclosure

c: Mr. Brian McLean, U.S. EPA
Mr. John C. Brown, FDEP - Tallahassee
Mr. Jerry Campbell, EPCHC

Tom
please handle
←
update Eds
Cindy Skelton
Lenora
appropriately
Andrew Skelton
7/2



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

May 19, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Stanley J. Martin
General Manager
Tampa Electric Company
P. O. Box 111
Tampa, Florida 33601-0111

Re: Request for Additional Time
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

On May 12, the Department received a request via facsimile from Ms. Janice K. Taylor for an additional 60 (sixty) days to respond to our request for additional information. According to our records, your office received our request for additional information on February 19, 1997.

The request for additional time was made in accordance with Rule 62-213.420(1)(b)6.a., F.A.C. The Department grants the additional 60 (sixty) days to respond in accordance with Rule 62-213.420(1)(b)6.b., F.A.C. Your response to the requested additional information is now due to the Department on **July 19, 1997**.

Should you require additional time to respond to the request, you will need to "demonstrate good cause" for the additional extension of time in accordance with Rule 62-213.420(1)(b)6.c., F.A.C.

If you should have any questions, please call Cindy Phillips or me at 904/488-1344.

Sincerely,

Scott M. Sheplak, P.E.
Administrator
Title V Section

SMS/sk

cc: Ms. Janice Taylor, TEC
Mr. Thomas W. Davis, P.E., ECT
Mr. Jerry Kissel, P.E., FDEP, SWD
Mr. Richard Kirby, P.E., FPCHC
Mr. Thomas W. Reese, Esquire

"Protect, Conserve and Manage Florida's Environment and Natural Resources"



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MAY 15 1997

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AIR REGULATION

May 12, 1997

Mr. Scott Sheplak, P.E.
Administrator-Title V Section
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5505
Tallahassee, Florida 32399-2400

**Via Facsimile and
Certified Mail No. P 404 702 916
Return Receipt Requested**

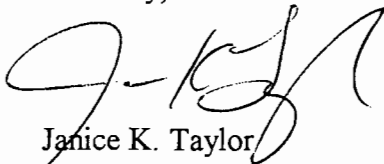
**Re: Tampa Electric Company
Big Bend Station
File No. 0570039-002-AV
Request for Additional Time**

Dear Mr. Sheplak:

Tampa Electric Company (TEC) received the Florida Department of Environmental Protection's (FDEP) request for additional information for our Big Bend Station on February 21, 1997. Due to time constraints, TEC requests sixty (60) additional days to respond to the Department's additional information request for the above referenced facility. This request is in accordance with Rule 62-213.420(1)(b)6., F.A.C.

Please telephone me at (813) 641-5039 if you have any questions. Thank you in advance for your consideration.

Sincerely,



Janice K. Taylor
Senior Engineer
Environmental Planning

EP\gm\JKT795

c: Ms. Cindy Phillips, FDEP - Tallahassee

COMMISSION
DOTTIE BERGER
JOE CHILLURA
CHRIS HART
JIM NORMAN
JAN PLATT
THOMAS SCOTT
ED TURANCHIK

EXECUTIVE DIRECTOR
ROGER P. STEWART



ADMINISTRATIVE OFFICES, LEGAL &
WASTE MANAGEMENT DIVISION
1000 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5585
FAX (813) 272-5187
AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530
WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788
WETLANDS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

FAX TRANSMITTAL SHEET

DATE: 5/15/97

TO: Cindy Phillips

FAX PHONE: 4 VOICE PHONE:

TOTAL NUMBER OF PAGES INCLUDING THIS COVER PAGE: 3

EPC FAX TRANSMISSION LINE: (813) 272-5605
FOR RETRANSMISSION OR ANY FAX PROBLEMS, CALL: (813) 272-5530

FROM: Rick Kirby
(CIRCLE APPLICABLE SECTION BELOW)

AIR DIVISION

- ENFORCEMENT

- ENGINEERING

- SUPPORT OPERATIONS

SPECIAL INSTRUCTIONS:

JIM NORMAN
JAN PLATT
THOMAS SCOTT
ED TURANCHIK

EXECUTIVE DIRECTOR
ROGER P. STEWART

An Affirmative Action - Equal Opportunity Employer



AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530
WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788
WETLANDS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

May 12, 1997

Big Bend Station
Tampa Electric Company
Attn: Stanley Martin
P.O. Box 111
Tampa, Florida 33601-0111

Re: Big Bend Station, Title V Operating Permit Application

Dear Mr. Martin:

The Environmental Protection Commission (EPC) of Hillsborough County is charged with protecting air quality in Hillsborough County. The agency has been delegated certain activities, such as lead compliance agency and permit review commenting agency, by the FDEP and U.S. EPA. As such, EPC has reviewed the referenced application and supporting information. In order to insure compliance with applicable laws and rules can be achieved, the following information is to be submitted with thirty days of receipt of this letter in accordance with Chapter 84-446, Section 10 and Chapter 1-3.21 Paragraph 2, Rules of the EPC:

1. Please submit information and calculations to quantify the emissions from each coal transloading source/emissions point emission point in the Big Bend station coal yard (Final Order Modifying Conditions of Certification, Condition 1.A.3 (a), Permit PA 79-12C).
2. Condition 1.A.3 (e) of the Final Order Modifying Conditions of Certification states that from each coal transloading source/emission point, the maximum annual transloading (transfer of coal shall not exceed 1,428,030 tons. However your 1996 AOR specifies a throughput of 5,135,419 tons/year of coal processed for the Big Bend Facility Emission Unit ID. 010, please explain.
3. Condition I (B) (3) of the Conditions of Certification Permit No. PA 79-12 requires that the permittee maintain daily logs of the types and amounts of coal used and copies of the fuel analysis. Please indicate where in the coal handling process sampling occurs and the frequency. What is the sampling procedure? Is the pet-coke sampled and tested with the same analysis/procedure?

Mr. Stanley Martin

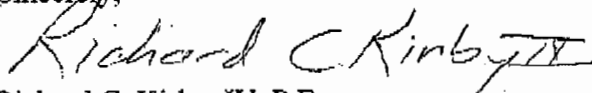
May 12, 1997

Page 2 of 2

4. Table 1 in PSD-FL-040 limits the emissions from the limestone silo to 0.05 lb/hr which is equivalent to 0.002 grains/dscf. Please indicate how TEC will provide reasonable assurance that an emission limit of 0.002 grains/dscf can be met in accordance with Chapter 62-4.070 (1) FAC.
5. Please submit information and calculations to quantify the emissions from the loading, unloading, and storage of fuel oil at the Big Bend station.
6. Please submit information and calculations to quantify the emissions from the flue gas conditioning systems. This includes emissions from the storage, handling, and use of sulfur and ammonia compounds.

If you have any questions, please contact me at (813) 272- 5530.

Sincerely,



Richard C. Kirby, IV, P.E.
Chief, Air Permitting Section

pls

cc: Cindy Phillips, P.E., FDEP - Tallahassee



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MAY 15 1997
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AIR REGULATION

May 12, 1997

Mr. Scott Sheplak, P.E.
Administrator-Title V Section
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5505
Tallahassee, Florida 32399-2400

**Via Facsimile and
Certified Mail No. P 404 702 916
Return Receipt Requested**

**Re: Tampa Electric Company
Big Bend Station
File No. 0570039-002-AV
Request for Additional Time**

Dear Mr. Sheplak:

Tampa Electric Company (TEC) received the Florida Department of Environmental Protection's (FDEP) request for additional information for our Big Bend Station on February 21, 1997. Due to time constraints, TEC requests sixty (60) additional days to respond to the Department's additional information request for the above referenced facility. This request is in accordance with Rule 62-213.420(1)(b)6., F.A.C.

Please telephone me at (813) 641-5039 if you have any questions. Thank you in advance for your consideration.

Sincerely,

Janice K. Taylor
Senior Engineer
Environmental Planning

EPgmUKT795

c: Ms. Cindy Phillips, FDEP - Tallahassee

BRUCE CINDY ED SUSAN
JOE CHARLES JON



SCOTT -

THIS RELATES TO
THE NO_x EARLY ELECTION
PLANS WE RECENTLY RECEIVED
FROM ATLANTA. (PART OF PHASE I)

WE NEED TO DEVELOP
APPROPRIATE LANGUAGE TO
INCLUDE IN THE ACR PLAN
PART FOR THE AFFECTED
PLANTS.

TOM

4-17-97



U.S. Environmental Protection Agency

[\[EPA Home\]](#) [\[Federal Register Home\]](#) [\[Comments\]](#) [\[Search\]](#)]

Federal Register Document

[Federal Register: April 16, 1997 (Volume 62, Number 73)]
[Notices]
[Page 18603-18604]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr16ap97_dat-67]

ENVIRONMENTAL PROTECTION AGENCY

[FRL-5812-5]

Acid Rain Program: Permit and Permit Modifications

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of permits and permit modifications.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is issuing, as a direct final action, Phase I Acid Rain permits and permit modifications including nitrogen oxides (NOx) compliance plans in accordance with the Acid Rain Program regulations (40 CFR parts 72 and 76). Because the Agency does not anticipate receiving adverse comments, the exemptions are being issued as a direct final action.

DATES: The permits and permit modifications issued in this direct final action will be final on May 26, 1997 or 40 days after publication of a similar notice in a local publication, whichever is later, unless significant, adverse comments are received by May 16, 1997 or 30 days after publication of a similar notice in a local publication, whichever is later. If significant, adverse comments are timely received on any permit or permit modification in this direct final action, that permit or permit modification will be withdrawn through a notice in the Federal Register.

ADDRESSES: Administrative Records. The administrative record for the permits, except information protected as confidential, may be viewed during normal operating hours at the following locations: for plants in New York, EPA Region 2, 290 Broadway, New York, NY, 10007-1866; for plants in Alabama, Florida, Georgia, Kentucky, North Carolina, South Carolina and Tennessee, EPA Region 4, 100 Alabama St., NW, Atlanta, GA, 30303; for plants in Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin, EPA Region 5, 77 West Jackson Blvd., Chicago, IL, 60604; for plants in Colorado, Montana, North Dakota, Utah and Wyoming, EPA Region 8, 999 18th St., Denver, CO, 80202.

Comments. Send comments, requests for public hearings, and requests to receive notice of future actions to: for plants in New York, EPA Region 2, Division of Environmental Planning & Protection, Attn: Gerry DeGaleano (address above); for plants in Alabama, Florida, Georgia, Kentucky, North Carolina, South Carolina and Tennessee, EPA Region 4, Air, Pesticides and Toxics Management Division, Attn: Scott Davis

(address above); for plants in Illinois, Indiana, and Ohio, EPA Region 5, Air and Radiation Division, Attn: Cecilia Mijares (address above); for plants in Michigan, Minnesota, and Wisconsin, EPA Region 5, Air and Radiation Division, Attn: Beth Valenziano (address above); for plants in Colorado, Montana, North Dakota, Utah and Wyoming, EPA Region 8, Air and Toxics Division, Attn: Mike Owens (address above). Submit comments in duplicate and identify the permit to which the comments apply, the commenter's name, address, and telephone number, and the commenter's interest in the matter and affiliation, if any, to the owners and operators of all units in the plan. All timely comments will be considered, except those pertaining to standard provisions under 40 CFR 72.9 or issues not relevant to the permit or the permit modification.

Hearings. To request a public hearing, state the issues proposed to be raised in the hearing. EPA may schedule a hearing if EPA finds that it will contribute to the decision-making process by clarifying significant issues affecting a NOX compliance plan.

FOR FURTHER INFORMATION CONTACT: For plants in New York, call Gerry DeGaetano, 212-637-4020; for plants in Alabama, Florida, Georgia, Kentucky, North Carolina, South Carolina and Tennessee, call Scott Davis, 404-562-9127; for plants in Illinois, Indiana, and Ohio, call Cecilia Mijares, 312-886-0968; for plants in Michigan, Minnesota, and Wisconsin, call Beth Valenziano, 312-866-2703; for plants in Colorado, Montana, North Dakota, Utah and Wyoming, call Mike Owens, 303-312-6440.

SUPPLEMENTARY INFORMATION: Title IV of the Clean Air Act directs EPA to establish a program to reduce the adverse effects of acidic deposition by promulgating rules and issuing permits to emission sources subject to the program. In today's action, EPA is issuing permits and permit modifications that include approval of early election plans for NOX. The units that are included in the early election plans will be required to meet an actual annual average emissions rate for NOX of either 0.45 lbs/MMBtu for tangentially-fired boilers or 0.50 lbs/MMBtu for dry bottom wall-fired boilers beginning on January 1, 1997 through December 31, 2007, after which they will be required to meet the applicable emissions limitation under 40 CFR 76.7(a) of 0.40 lbs/MMBtu for tangentially-fired boilers or 0.46 lbs/MMBtu for dry bottom wall-fired boilers. The following is a list of units included in the permits or permit modifications and the limits that they are required to meet:

S A Carlson units 9, 10, 11, and 12 in New York: 0.50 lbs/MMBtu. The designated representative is R. James Gronquist.
Kintigh unit 1 in New York: 0.50 lbs/MMBtu. The designated representative is James Rettberg.
Charles R Lowman units 2 and 3 in Alabama: 0.50 lbs/MMBtu. The designated representative is John Howard.
C D McIntosh unit 3 in Florida: 0.50 lbs/MMBtu. The designated representative is Ronald Tomlin.
Crystal River units 2, 4, and 5 in Florida: 0.45 lbs/MMBtu for unit 2; 0.50 lbs/MMBtu for units 4 and 5. The designated representative is W. Jeffrey Pardue.
Deerhaven unit B2 in Florida: 0.50 lbs/MMBtu. The designated representative is John Hancock, Jr.
St. Johns River Power Park units 1 and 2 in Florida: 0.50 lbs/MMBtu. The designated representative is Brian Wirz.
Scherer unit 4 in Georgia: 0.45 lbs/MMBtu. The designated representative is R. Haubein, Jr.
D B Wilson unit W1 in Kentucky: 0.50 lbs/MMBtu. The designated representative is Gregory Black.
Cane Run units 4, 5, and 6 in Kentucky: 0.50 lbs/MMBtu for units 4 and 5; 0.45 lbs/MMBtu for unit 6. The designated representative is Chris Herman.
Mill Creek units 1, 2, 3, and 4 in Kentucky: 0.45 lbs/MMBtu for units 1 and 2; 0.50 lbs/MMBtu for units 3 and 4. The designated representative is Chris Herman.
Trimble County unit 1 in Kentucky: 0.45 lbs/MMBtu. The designated representative is Chris Herman.

Buck units 5, 6, 7, 8, and 9 in North Carolina: 0.45 lbs/MMBtu. The designated representative is T. McMeekin.
Cliffside units 1, 2, 3, 4, and 5 in North Carolina: 0.45 lbs/MMBtu. The

[[Page 18604]]

designated representative is T. McMeekin.
Dan River units 1, 2, and 3 in North Carolina: 0.45 lbs/MMBtu. The designated representative is T. McMeekin.
G G Allen units 1, 2, 3, 4, and 5 in North Carolina: 0.45 lbs/MMBtu. The designated representative is T. McMeekin.
Lee units 1, 2, and 3 in North Carolina: 0.45 lbs/MMBtu for unit 1; 0.50 lbs/MMBtu for units 2 and 3. The designated representative is Ronnie Coats.
Marshall units 1, 2, 3, and 4 in North Carolina: 0.45 lbs/MMBtu. The designated representative is T. McMeekin.
Riverbend units 7, 8, 9, and 10 in North Carolina: 0.45 lbs/MMBtu. The designated representative is T. McMeekin.
Cross units 1 and 2 in South Carolina: 0.50 lbs/MMBtu for unit 1; 0.45 lbs/MMBtu for unit 2. The designated representative is Maxie Chaplin.
Winyah units 2, 3, and 4 in South Carolina: 0.50 lbs/MMBtu. The designated representative is Maxie Chaplin.
John Sevier units 1, 2, 3, and 4 in Tennessee: 0.45 lbs/MMBtu. The designated representative is Joseph Dickey.
Dallman unit 33 in Illinois: 0.45 lbs/MMBtu. The designated representative is William Murray.
Crawford units 7 and 8 in Illinois: 0.45 lbs/MMBtu. The designated representative is Emerson Lacey.
Fisk unit 19 in Illinois: 0.45 lbs/MMBtu. The designated representative is Emerson Lacey.
Waukegan units 7 & 8 in Illinois: 0.45 lbs/MMBtu. The designated representative is Emerson Lacey.
Will County units 3 and 4 in Illinois: 0.45 lbs/MMBtu. The designated representative is Emerson Lacey.
State Line unit 3 in Indiana: 0.45 lbs/MMBtu. The designated representative is Emerson Lacey.
Merom units 1SG1 and 2SG1 in Indiana: 0.50 lbs/MMBtu. The designated representative is J. Steven Smith.
R M Schahfer units U15, U17, and U18 in Indiana: 0.50 lbs/MMBtu for unit U15; 0.45 lbs/MMBtu for units U17 and U18. The designated representative is Patrick Mulchay.
A B Brown units 1 and 2 in Indiana: 0.50 lbs/MMBtu. The designated representative is J. Gordon Hurst.
J B Sims unit 3 in Michigan: 0.50 lbs/MMBtu. The designated representative is Phil Trumpfheller.
B C Cobb units 4 and 5 in Michigan: 0.45 lbs/MMBtu. The designated representative is Robert Nicholson.
J R Whiting units 1 and 3 in Michigan: 0.50 lbs/MMBtu. The designated representative is Robert Nicholson.
Presque Isle units 7, 8, and 9 in Michigan: 0.50 lbs/MMBtu. The designated representative is Terry Coughlin.
Clay Boswell unit 3 in Minnesota: 0.45 lbs/MMBtu. The designated representative is Warren Candy.
Hoot Lake unit 2 in Minnesota: 0.45 lbs/MMBtu. The designated representative is Ward Uggerud.
W H Zimmer unit 1 in Ohio: 0.50 lbs/MMBtu. The designated representative is David Hoffman.
Blount Street units 8 and 9 in Wisconsin: 0.50 lbs/MMBtu. The designated representative is Steven Schultz.
Columbia units 1 and 2 in Wisconsin: 0.45 lbs/MMBtu. The designated representative is Daniel Doyle.
Edgewater unit 5 in Wisconsin: 0.50 lbs/MMBtu. The designated representative is Daniel Doyle.
Ray D Nixon unit 1 in Colorado: 0.50 lbs/MMBtu. The designated representative is James Zalmanek.
Rawhide unit 101 in Colorado: 0.45 lbs/MMBtu. The designated representative is Lloyd Greiner.

Cherokee units 3 and 4 in Colorado: 0.50 lbs/MMBtu for unit 3; 0.45 lbs/MMBtu for unit 4. The designated representative is Ralph Sargent.
Comanche units 1 and 2 in Colorado: 0.45 lbs/MMBtu for unit 1; 0.50 lbs/MMBtu for unit 2. The designated representative is Ralph Sargent.
Pawnee unit 1 in Colorado: 0.50 lbs/MMBtu. The designated representative is Ralph Sargent.
Valmont unit 5 in Colorado: 0.45 lbs/MMBtu. The designated representative is Ralph Sargent.
Craig units C1, C2, and C3 in Colorado: 0.50 lbs/MMBtu. The designated representative is Jerry Walker.
Colstrip units 1, 2, 3, and 4 in Montana: 0.45 lbs/MMBtu. The designated representative is Carlton Grimm.
Lewis & Clark unit B1 in Montana: 0.45 lbs/MMBtu. The designated representative is Bruce Imsdahl.
Antelope Valley units B1 and B2 in North Dakota: 0.45 lbs/MMBtu. The designated representative is Richard Fockler.
Leland Olds unit 1 North Dakota: 0.50 lbs/MMBtu. The designated representative is Richard Fockler.
Stanton unit 10 in North Dakota: 0.50 lbs/MMBtu. The designated representative is Gordon Westerlind.
Bonanza unit 1-1 in Utah: 0.50 lbs/MMBtu. The designated representative is F. Ward Elgin.
Intermountain units 1SGA and 2SGA in Utah: 0.50 lbs/MMBtu. The designated representative is Dennis Whitney.
Carbon units 1 and 2 in Utah: 0.45 lbs/MMBtu. The designated representative is William Brauer.
Hunter units 1 and 2 in Utah: 0.45 lbs/MMBtu. The designated representative is William Brauer.
Huntington unit 1 in Utah: 0.45 lbs/MMBtu. The designated representative is William Brauer.
Laramie River units 1, 2, and 3 in Wyoming: 0.50 lbs/MMBtu. The designated representative is Richard Fockler.
Dave Johnston units BW41 and BW42 in Wyoming: 0.50 lbs/MMBtu. The designated representative is William Brauer.
Jim Bridger unit BW74 in Wyoming: 0.45 lbs/MMBtu. The designated representative is William Brauer.

Dated: April 10, 1997.

Brian J. McLean,
Director, Acid Rain Division, Office of Atmospheric Programs, Office of Air and Radiation.

[FR Doc. 97-9866 Filed 4-12-97; 8:45 am]


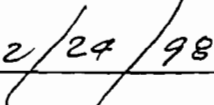
BILLING CODE 6560-50-P

Facility ID: 0570039

D. OWNER/CONTACT INFORMATION

1. Owner or Authorized Representative	
Name and Title	PATRICK A. HO, MANAGER
HUGH SMITH	ENVIRONMENTAL PLANNING
DIRECTOR, ENERGY SUPPLY SERVICES	
Mailing Address	
Organization/Firm:	TAMPA ELECTRIC COMPANY
Street Address:	PO BOX 111
City:	TAMPA
State:	FL
Zip Code:	33601-0111
Telephone: (813) 641-5045 641-5044	Fax: (813) 641-5081
2. Facility Contact	
Name and Title	Jamie Woodlee
	Technician
Mailing Address	
Organization/Firm:	TAMPA ELECTRIC COMPANY
Street Address:	PO BOX 111
City:	TAMPA
State:	FL
Zip Code:	33601-0111
Telephone: (813) 641-5060	Fax: (813) 641-5081

E. OWNER OR AUTHORIZED REPRESENTATIVE STATEMENT

I hereby certify that the information given in this report is correct to the best of my knowledge.	
	
Signature	Date

Facility ID: 0570039

Emissions ID: 001

SCC: 1-01-002-01

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description UNIT #1 COAL FIRED BOILER W/RESEARCH-COTRELL ESP		
2. Emissions Unit ID 001	3. Emissions Unit Classification R	4. Operated During Year? Y
5. DEP Permit or PPS Number A 029-219924	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type AN EMISSION POINT SERVING TWO OR MORE EMISSIONS UNITS
2a. Description of Control Equipment 'a' ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0 - 99.9%)
2b. Description of Control Equipment 'b'

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

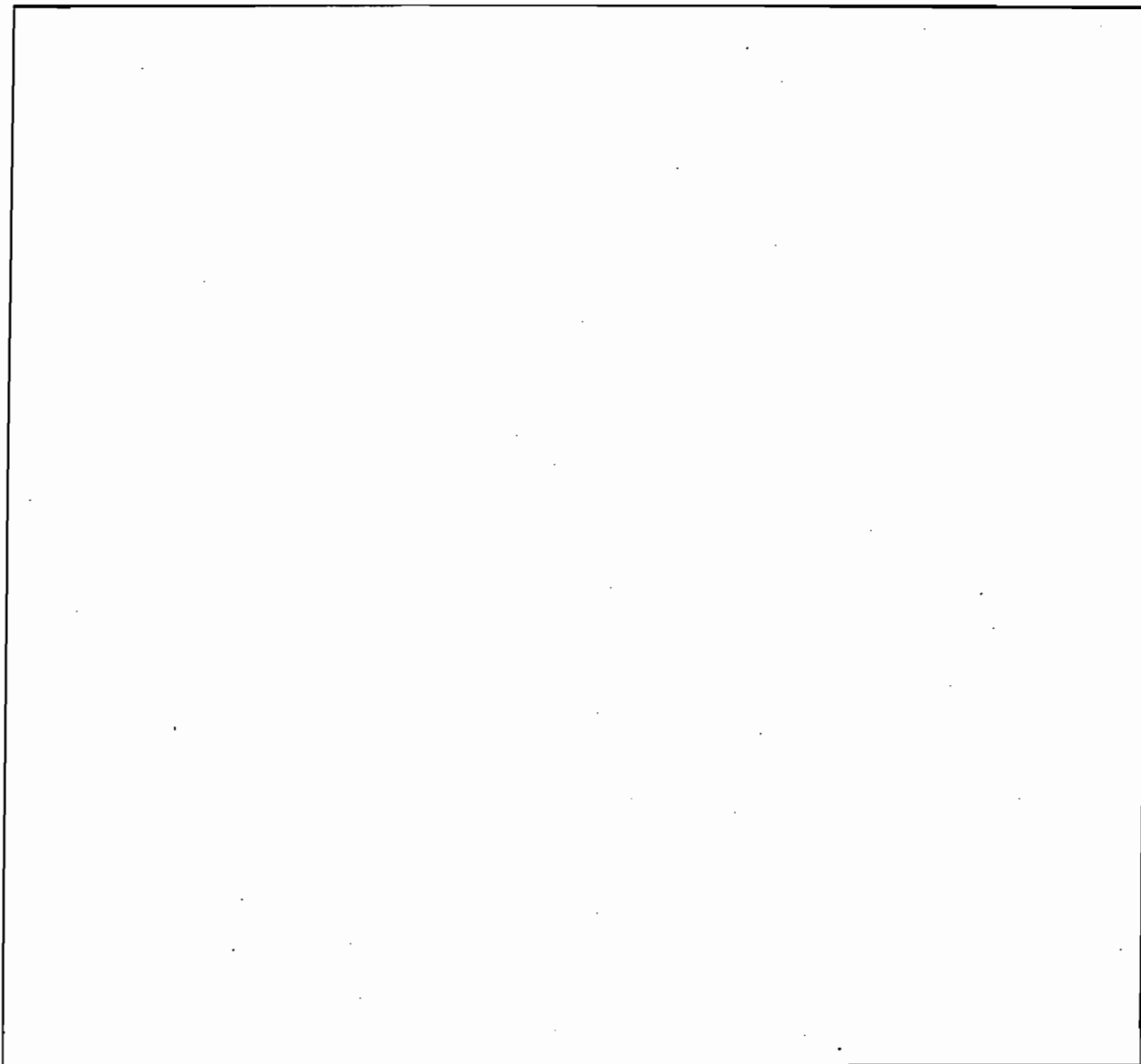
1. Average Annual Operation 24 hours/day 7 days/Week	2. Total Operation During Year (hours/year) 7049
3. Percent Hours of Operation by Season DJF: 29 MAM: 11 JJA: 31 SON: 29	
4. Average Ozone Season Operation (June 1 to August 31) 24 hours/day 7 days/week	5. Total Operation During Ozone Season (days/season) 90

Facility ID: 0570039

Emissions ID: 001

SCC: 1-01-002-01

D. EMISSIONS UNIT COMMENT

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E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-002-01	2. Description of Process or Type of Fuel External Combustion Boilers Bituminous Coal Electric Generation Pulverized Coal: Wet Bottom	
3. Annual Process or Fuel Usage Rate 1043843	4. Ozone Season Daily Process or Fuel Usage Rate 3636	5. SCC Unit TONS BURNED
6. Fuel Average % Sulfur 1.76	7. Fuel Average % Ash 6.90	8. Fuel Heat Content (mmBtu/SCC Unit) 22.68

(2) EMISSIONS INFORMATION

1a. Pollutant 'a' Carbon Monoxide, CO		CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2a. Annual Emissions (ton/year) 313	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 3	
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x CO Rate) / 2000 See attached page for calculations			
1b. Pollutant 'b' Nitrogen Oxides, NOx		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2b. Annual Emissions (ton/year) 11844 *	3b. Ozone Season Daily Emissions (lb/day) **	4b. Emissions Method Code 1	
5b. Emissions Calculation (Show separately both annual and daily emissions calculations) CEM Data *NOx emissions come from coal and #2 oil. **CEMs do not provide individual NOx emissions, per month, due to being a common stack.			
1c. Pollutant 'c' Lead, Pb - Total (elemental and lead compounds)		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2c. Annual Emissions (ton/year) 7	3c. Ozone Season Daily Emissions (lb/day) N/A	4c. Emissions Method Code 3	
5c. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Pb Rate) / 2000 See attached sheet for calculations.			

Facility ID: 0570039

Emissions ID: 001

SCC: 1-01-002-01

(2) EMISSIONS INFORMATION (Continued)

1d. Pollutant 'd' PM Particulate Matter - Total		CAS No.	[] Below Threshold [] Not Emitted
2d. Annual Emissions (ton/year) 501	3d. Ozone Season Daily Emissions (lb/day) N/A	4d. Emissions Method Code 2	
5d. Emissions Calculation (Show separately both annual and daily emissions calculations) (MMBtu x PM Rate) / 2000 See attached sheet for calculations			

1e. Pollutant 'e' PM - 10 Particulate Matter - PM 10		CAS No.	[] Below Threshold [] Not Emitted
2e. Annual Emissions (ton/year) 501	3e. Ozone Season Daily Emissions (lb/day) N/A	4e. Emissions Method Code 2	
5e. Emissions Calculation (Show separately both annual and daily emissions calculations) (MMBtu x PM10 Rate)/2000 See attached sheet for calculations			

1f. Pollutant 'f' SO2 Sulfur Dioxide		CAS No. 7446-09-5	[] Below Threshold [] Not Emitted
2f. Annual Emissions (ton/year) 37315 *	3f. Ozone Season Daily Emissions (lb/day) N/A	4f. Emissions Method Code 1	
5f. Emissions Calculation (Show separately both annual and daily emissions calculations) CEM Data *SO2 emissions come from coal and #2 oil.			

1g. Pollutant 'g' VOC		CAS No.	[] Below Threshold [] Not Emitted
2g. Annual Emissions (ton/year) 37	3g. Ozone Season Daily Emissions (lb/day) 261	4g. Emissions Method Code 3	
5g. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x VOC Rate) / 2000			

Facility ID: 0570039

Emissions Unit ID: 001

SCC: 1-01-005-01

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-005-01	2. Description of Process or Type of Fuel External Combustion Boilers Distillate Oil Electric Generation Grades 1 and 2 Oil	
3. Annual Process or Fuel Usage Rate 463.85	4. Ozone Season Daily Process or Fuel Usage Rate 1.26	5. SCC Unit KGAL BURNED
6. Fuel Average % Sulfur 0.17	7. Fuel Average % Ash <0.001	8. Fuel Heat Content (MMBtu / KGAL) 137.974

(2) EMISSIONS INFORMATION

1a. Pollutant 'a' Carbon Monoxide, CO		CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2a. Annual Emissions (ton/year) 1	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 3	
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x CO Rate) / 2000 See attached page for calculations			
1b. Pollutant 'b' Nitrogen Oxides, NOx		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2b. Annual Emissions (ton/year) *	3b. Ozone Season Daily Emissions (lb/day) *	4b. Emissions Method Code 1	
5b. Emissions Calculation (Show separately both annual and daily emissions calculations) *NOx emissions for #2 oil are included in NOx emissions reported for coal.			
1c. Pollutant 'c' Lead, Pb - Total (elemental and lead compounds)		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2c. Annual Emissions (ton/year) 0	3c. Ozone Season Daily Emissions (lb/day) N/A	4c. Emissions Method Code 3	
5c. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Pb Rate) / 2000 See attached page for calculations			

(2) EMISSIONS INFORMATION (Continued)

1d. Pollutant 'd' PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2d. Annual Emissions (ton/year) .46	3d. Ozone Season Daily Emissions (lb/day) N/A	4d. Emissions Method Code 1	
5d. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x PM Rate)/2000 See attached page for calculations			

1e. Pollutant 'e' PM - 10 Particulate Matter - PM 10		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2e. Annual Emissions (ton/year) .023	3e. Ozone Season Daily Emissions (lb/day) N/A	4e. Emissions Method Code 1	
5e. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x PM10 Rate)/2000 See attached page for calculations			

1f. Pollutant 'f' SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2f. Annual Emissions (ton/year) *	3f. Ozone Season Daily Emissions (lb/day) N/A	4f. Emissions Method Code 1	
5f. Emissions Calculation (Show separately both annual and daily emissions calculations) *SO2 emissions for #2 oil are included in the SO2 emissions reported for coal. CEM Data			

1g. Pollutant 'g' VOC		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2g. Annual Emissions (ton/year) 0	3g. Ozone Season Daily Emissions (lb/day) 0	4g. Emissions Method Code 3	
5g. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x VOC Rate) / 2000 See attached sheet for calculations			

Facility ID: 0570039

Emissions Unit ID: 002

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description UNIT #2 RILEY -STOKER COAL FIRED BOILER W / ESP		
2. Emissions Unit ID 002	3. Emissions Unit Classification R	4. Operated During Year? Y
5. DEP Permit or PPS Number A 029-179912	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a' ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0 - 99.9%)
2b. Description of Control Equipment 'b'

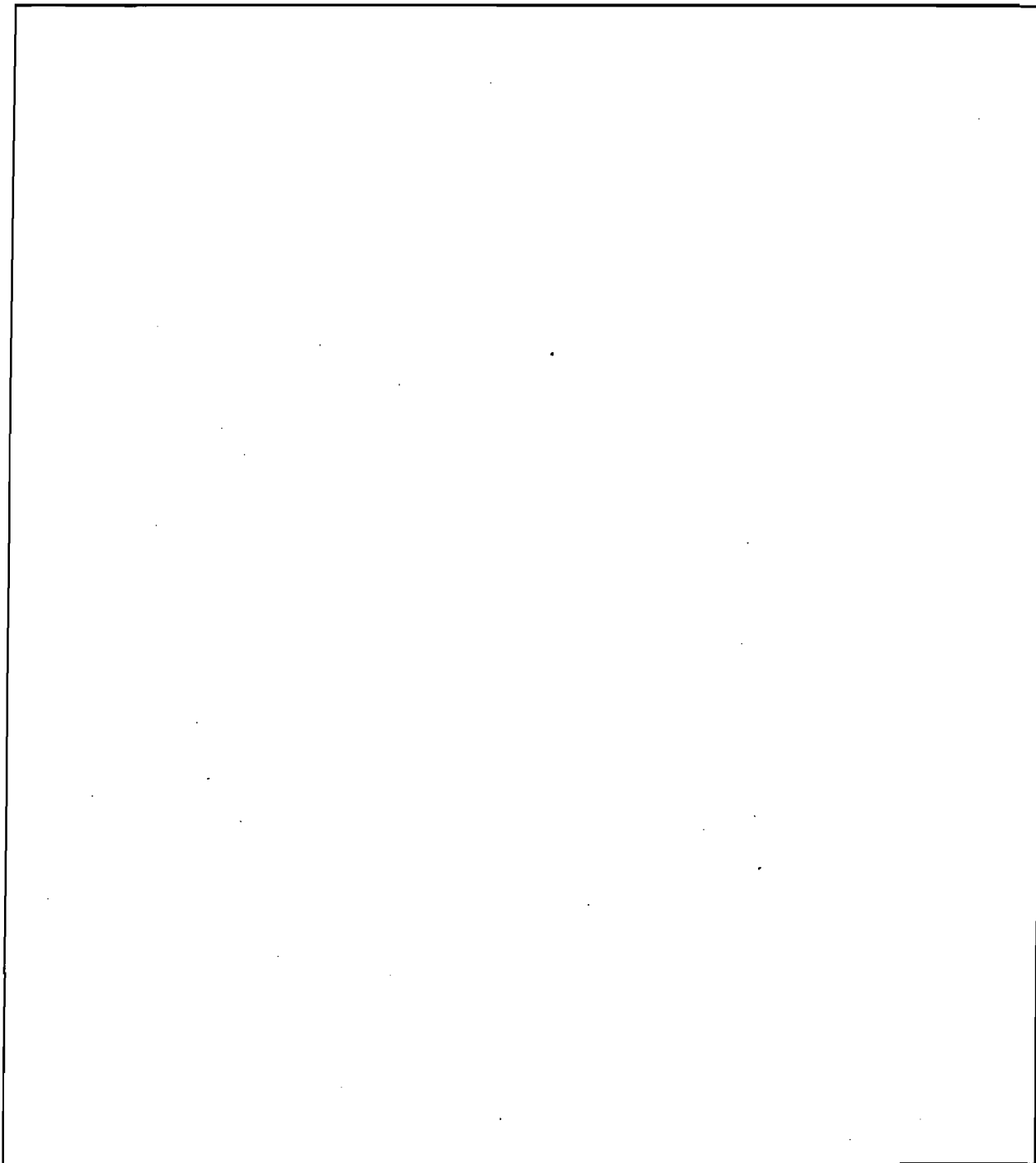
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 24 hours/day 7 days/Week	2. Total Operation During Year (hours/year) 8481
3. Percent Hours of Operation by Season DJF: 21 MAM: 27 JJA: 26 SON: 26	
4. Average Ozone Season Operation (June 1 to August 31) 23 hours/day 7 days/week	5. Total Operation During Ozone Season (days/season) 90

Facility ID: 0570039

Emissions Unit ID: 002

D. EMISSIONS UNIT COMMENT

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Facility ID:0570039

Emissions Unit ID: 002

SCC: 1-01-002-01

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-002-01	2. Description of Process or Type of Fuel External Combustion Boilers Bituminous Coal Electric Generation Pulverized Coal: Wet Bottom CONSUMPTION OF BITUMINOUS COAL	
3. Annual Process or Fuel Usage Rate 1266912	4. Ozone Season Daily Process or Fuel Usage Rate 3520	5. SCC Unit TONS BURNED
6. Fuel Average % Sulfur 1.73	7. Fuel Average % Ash 6.74	8. Fuel Heat Content (mmBtu/SCC Unit) 25.85

(2) EMISSIONS INFORMATION

1a. Pollutant 'a' Carbon Monoxide, CO	CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2a. Annual Emissions (ton/year) 380	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 3
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x CO Rate) / 2000 See attached page for calculations		
1b. Pollutant 'b' Nitrogen Oxides, NOx	CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2b. Annual Emissions (ton/year) 14244 *	3b. Ozone Season Daily Emissions (lb/day) **	4b. Emissions Method Code 1
5b. Emissions Calculation (Show separately both annual and daily emissions calculations) *NOx emissions are for coal and #2 oil. **CEMs do not provide individual NOx emissions, per month, due to being a common stack.		
1c. Pollutant 'c' Lead, Pb - Total (elemental and lead compounds)	CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2c. Annual Emissions (ton/year) 8	3c. Ozone Season Daily Emissions (lb/day) N/A	4c. Emissions Method Code 1
5c. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Pb Rate) / 2000		

(2) EMISSIONS INFORMATION (Continued)

1d. Pollutant 'd' PM Particulate Matter - Total			CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2d. Annual Emissions (ton/year) 924	3d. Ozone Season Daily Emissions (lb/day) N/A	4d. Emissions Method Code 2		
5d. Emissions Calculation (Show separately both annual and daily emissions calculations) (MMBtu x PM Rate)/2000 See attached sheet for calculations				

1e. Pollutant 'e' PM - 10 Particulate Matter - PM 10			CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2e. Annual Emissions (ton/year) 924	3e. Ozone Season Daily Emissions (lb/day) N/A	4e. Emissions Method Code 2		
5e. Emissions Calculation (Show separately both annual and daily emissions calculations) (MMBtu x PM10 Rate)/2000 See attached sheet for calculations				

1f. Pollutant 'f' SO2 Sulfur Dioxide			CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2f. Annual Emissions (ton/year) 44876 *	3f. Ozone Season Daily Emissions (lb/day) N/A	4f. Emissions Method Code 2		
5f. Emissions Calculation (Show separately both annual and daily emissions calculations) *SO2 emissions are from coal and #2 oil. CEM Data				

1g. Pollutant 'g' VOC			CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2g. Annual Emissions (ton/year) 44	3g. Ozone Season Daily Emissions (lb/day) 239	4g. Emissions Method Code 3		
5g. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x VOC Rate) / 2000				

Facility ID: 0570039

Emissions Unit ID: 002

SCC: 1-01-005-01

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-005-01	2. Description of Process or Type of Fuel External Combustion Boilers Distillate Oil Electric Generation Grades 1 and 2 Oil CONSUMPTION OF NO. 2 IGNITION OIL	
3. Annual Process or Fuel Usage Rate 472.31	4. Ozone Season Daily Process or Fuel Usage Rate 1.26	5. SCC Unit 1000 Gallons Burned
6. Fuel Average % Sulfur .17	7. Fuel Average % Ash <0.001	8. Fuel Heat Content (MMBtu / KGAL)

(2) EMISSIONS INFORMATION

1a. Pollutant 'a' Carbon Monoxide, CO		CAS No. 630-08-0	[] Below Threshold [] Not Emitted
2a. Annual Emissions (ton/year) 1	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 3	
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x CO Rate) / 2000 See attached page for calculations			
1b. Pollutant 'b' Nitrogen Oxides, NOx		CAS No.	[] Below Threshold [] Not Emitted
2b. Annual Emissions (ton/year) *	3b. Ozone Season Daily Emissions (lb/day) *	4b. Emissions Method Code 1	
5b. Emissions Calculation (Show separately both annual and daily emissions calculations) *NOx emissions for #2 oil are included in the NOx emissions reported for coal. CEM Data			
1c. Pollutant 'c' Lead, Pb - Total (elemental and lead compounds)		CAS No.	[] Below Threshold [] Not Emitted
2c. Annual Emissions (ton/year) 0	3c. Ozone Season Daily Emissions (lb/day) N/A	4c. Emissions Method Code 3	
5c. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Pb Rate) / 2000			

Facility ID: 0570039

Emissions Unit ID: 002

SCC: 1-01-005-01

(2) EMISSIONS INFORMATION (Continued)

1d. Pollutant 'd' PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2d. Annual Emissions (ton/year) .47	3d. Ozone Season Daily Emissions (lb/day) N/A	4d. Emissions Method Code 1	
5d. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x PM Rate)/2000 See attached sheet for calculations			

1e. Pollutant 'e' PM - 10 Particulate Matter - PM 10		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2e. Annual Emissions (ton/year) .24	3e. Ozone Season Daily Emissions (lb/day) N/A	4e. Emissions Method Code 1	
5e. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x PM10 Rate)/2000 See attached sheet for calculations			

1f. Pollutant 'f' SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2f. Annual Emissions (ton/year) *	3f. Ozone Season Daily Emissions (lb/day) N/A	4f. Emissions Method Code 1	
5f. Emissions Calculation (Show separately both annual and daily emissions calculations) *SO2 emissions for #2 oil are included in the SO2 emissions reported for coal. CEM Data			

1g. Pollutant 'g' VOC		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2g. Annual Emissions (ton/year) 0	3g. Ozone Season Daily Emissions (lb/day) 0	4g. Emissions Method Code 3	
5g. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x VOC Rate) / 2000			

Facility ID: 0570039

Emissions Unit ID: 003

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description UNIT #3 RILEY -STOKER COAL FIRED BOILER W / ESP		
2. Emissions Unit ID 003	3. Emissions Unit Classification R	4. Operated During Year? Y
5. DEP Permit or PPS Number A 029-179911	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a' ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0 - 99.9%)
2b. Description of Control Equipment 'b' LIMESTONE SCRUBBER

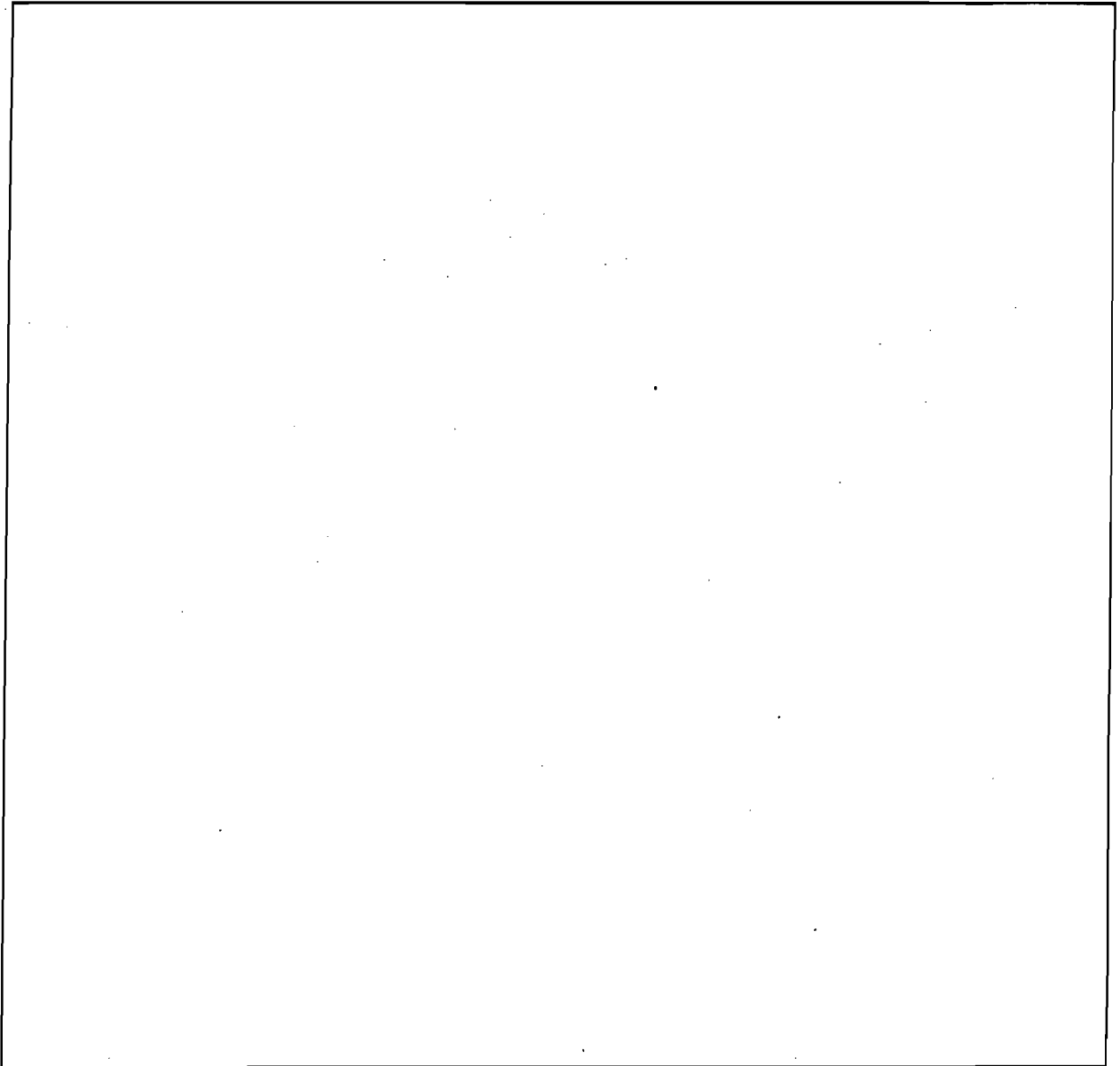
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 24 hours/day 7 days/Week	2. Total Operation During Year (hours/year) 7549
3. Percent Hours of Operation by Season DJF: 26 MAM: 27 JJA: 19 SON: 28	
4. Average Ozone Season Operation (June 1 to August 31) 16 hours/day 7 days/week	5. Total Operation During Ozone Season (days/season) 60

Facility ID: 0570039

Emissions Unit ID: 003

D. EMISSIONS UNIT COMMENT

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E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-002-01	2. Description of Process or Type of Fuel External Combustion Boilers Bituminous Coal & Petroleum Coke* Electric Generation Pulverized Coal: Wet Bottom	
3. Annual Process or Fuel Usage Rate 1131277	4. Ozone Season Daily Process or Fuel Usage Rate 2162	5. SCC Unit TONS BURNED
6. Fuel Average % Sulfur 2.59	7. Fuel Average % Ash 8.56	8. Fuel Heat Content (mmBtu/SCC Unit) 22.93

(2) EMISSIONS INFORMATION

1a. Pollutant 'a' Carbon Monoxide, CO		CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2a. Annual Emissions (ton/year) 339	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 3	
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x CO Rate) / 2000			
1b. Pollutant 'b' Nitrogen Oxides, NOx		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2b. Annual Emissions (ton/year) 8062 *	3b. Ozone Season Daily Emissions (lb/day) **	4b. Emissions Method Code 1	
5b. Emissions Calculation (Show separately both annual and daily emissions calculations) CEM Data *NOx emissions are from coal and #2 oil. **CEMs do not provide individual NOx emissions, per month, due to being a common stack.			
1c. Pollutant 'c' Lead, Pb - Total (elemental and lead compounds)		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2c. Annual Emissions (ton/year) 8	3c. Ozone Season Daily Emissions (lb/day) N/A	4c. Emissions Method Code 3	
5c. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Pb Rate) / 2000			

(2) EMISSIONS INFORMATION (Continued)

1d. Pollutant 'd' PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2d. Annual Emissions (ton/year) 1371	3d. Ozone Season Daily Emissions (lb/day) N/A	4d. Emissions Method Code 2	
5d. Emissions Calculation (Show separately both annual and daily emissions calculations) (MMBtu x PM Rate)/2000 See attached sheet for calculations			

1e. Pollutant 'e' PM - 10 Particulate Matter - PM 10		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2e. Annual Emissions (ton/year) 1371	3e. Ozone Season Daily Emissions (lb/day) N/A	4e. Emissions Method Code 2	
5e. Emissions Calculation (Show separately both annual and daily emissions calculations) (MMBtu x PM10 Rate)/2000 See attached sheet for calculations			

1f. Pollutant 'f' SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2f. Annual Emissions (ton/year) 14459 *	3f. Ozone Season Daily Emissions (lb/day) N/A	4f. Emissions Method Code 1	
5f. Emissions Calculation (Show separately both annual and daily emissions calculations) *SO2 emissions are from coal and #2 oil. CEM Data			

1g. Pollutant 'g' VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2g. Annual Emissions (ton/year) 40	3g. Ozone Season Daily Emissions (lb/day) 174	4g. Emissions Method Code 3	
5g. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x VOC Rate) / 2000 See attached sheet for calculations.			

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-005-01	2. Description of Process or Type of Fuel External Combustion Boilers Distillate Oil Electric Generation Grades 1 and 2 Oil	
3. Annual Process or Fuel Usage Rate 472.31	4. Ozone Season Daily Process or Fuel Usage Rate 1.26	5. SCC Unit 1000 Gallons Burned
6. Fuel Average % Sulfur .17	7. Fuel Average % Ash <0.001	8. Fuel Heat Content (MMBtu/SCC Unit) 137.974

(2) EMISSIONS INFORMATION

1a. Pollutant 'a' Carbon Monoxide, CO		CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2a. Annual Emissions (ton/year) 1	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 3	
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x CO Rate) / 2000 See attached sheet for calculations.			
1b. Pollutant 'b' Nitrogen Oxides, NOx		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2b. Annual Emissions (ton/year) *	3b. Ozone Season Daily Emissions (lb/day) **	4b. Emissions Method Code 1	
5b. Emissions Calculation (Show separately both annual and daily emissions calculations) *NOx emissions are for #2 oil are included in the NOx emissions provided for coal. CEM Data			
1c. Pollutant 'c' Lead, Pb - Total (elemental and lead compounds)		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2c. Annual Emissions (ton/year) 0	3c. Ozone Season Daily Emissions (lb/day) N/A	4c. Emissions Method Code 3	
5c. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Pb Rate) / 2000 See attached sheet for calculations.			

(2) EMISSIONS INFORMATION (Continued)

1d. Pollutant 'd' PM CAS No. <input type="checkbox"/> Below Threshold Particulate Matter - Total <input type="checkbox"/> Not Emitted		
2d. Annual Emissions (ton/year) 0.47	3d. Ozone Season Daily Emissions (lb/day) N/A	4d. Emissions Method Code 1
5d. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x PM Rate)/2000 See attached sheet for calculations		

1e. Pollutant 'e' PM - 10 CAS No. <input type="checkbox"/> Below Threshold Particulate Matter - PM 10 <input type="checkbox"/> Not Emitted		
2e. Annual Emissions (ton/year) 0.24	3e. Ozone Season Daily Emissions (lb/day) N/A	4e. Emissions Method Code 1
5e. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x PM10 Rate)/2000 See attached sheet for calculations		

1f. Pollutant 'f' SO2 CAS No. 7446-09-5 <input type="checkbox"/> Below Threshold Sulfur Dioxide <input type="checkbox"/> Not Emitted		
2f. Annual Emissions (ton/year) *	3f. Ozone Season Daily Emissions (lb/day) N/A	4f. Emissions Method Code 1
5f. Emissions Calculation (Show separately both annual and daily emissions calculations) *SO2 emissions for #2 oil are included in the SO2 emissions reported for coal. CEM Data		

1g. Pollutant 'g' VOC CAS No. <input type="checkbox"/> Below Threshold Volatile Organic Compounds <input type="checkbox"/> Not Emitted		
2g. Annual Emissions (ton/year) 0	3g. Ozone Season Daily Emissions (lb/day) 0	4g. Emissions Method Code 3
5g. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x VOC Rate) / 2000 See attached sheet for calculations		

Facility ID: 0570039

Emissions Unit ID: 004

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description UNIT #4 COAL - FIRED BOILER W / BELCO ESP PSD-FL-040		
2. Emissions Unit ID 004	3. Emissions Unit Classification R	4. Operated During Year? Y
5. DEP Permit or PPS Number PSD-FL-040	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a' ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0 - 99.9%)
2b. Description of Control Equipment 'b' LIMESTONE SCRUBBER

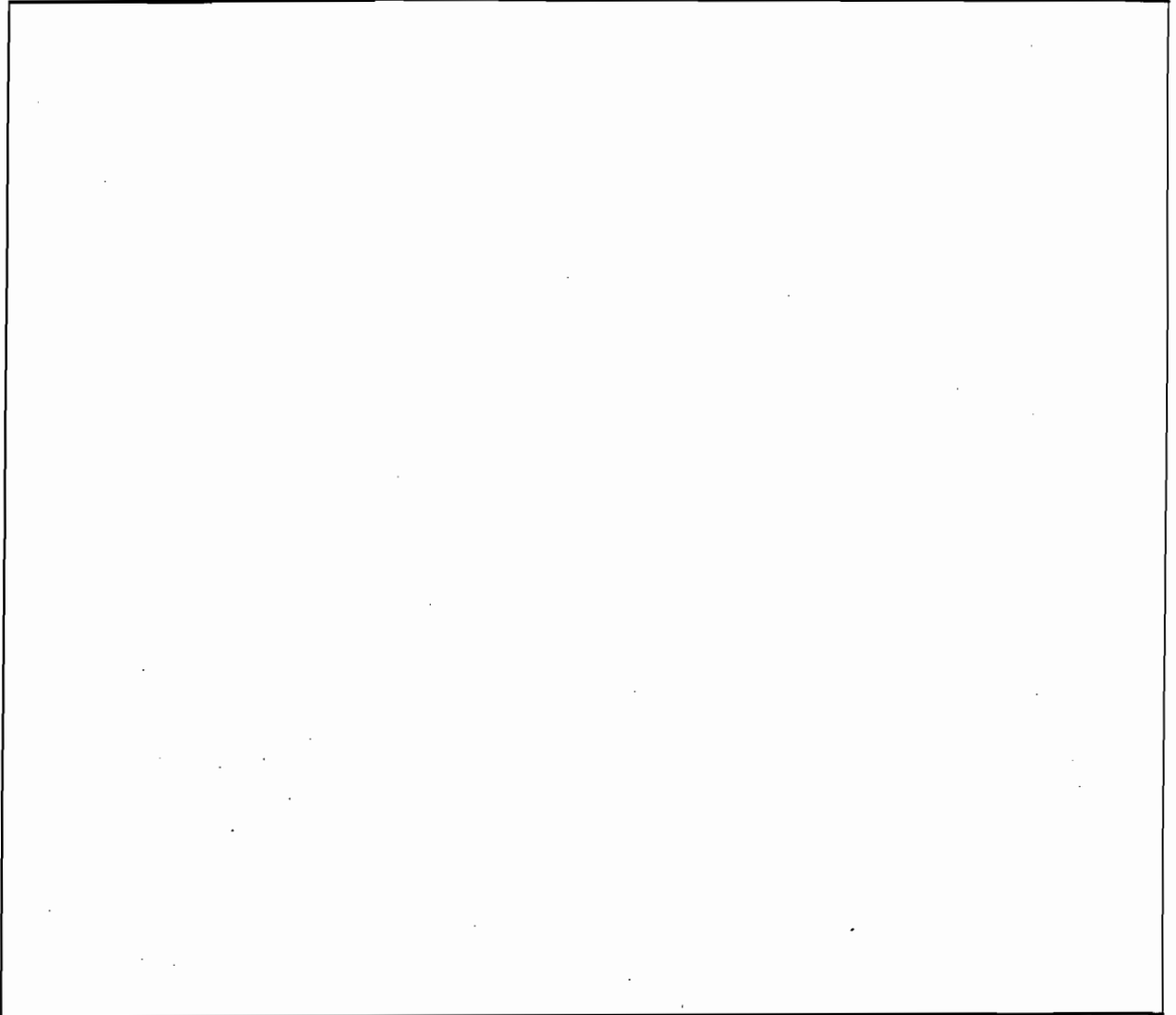
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 24 hours/day 7 days/Week	2. Total Operation During Year (hours/year) 7761
3. Percent Hours of Operation by Season DJF: 22 MAM: 25 JJA: 28 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) 23 hours/day 7 days/week	5. Total Operation During Ozone Season (days/season) 89

Facility ID: 0570039

Emissions Unit ID: 004

D. EMISSIONS UNIT COMMENT

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Facility ID: 0570039

Emissions Unit ID: 004

SCC: 1-01-002-12

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-002-12	2. Description of Process or Type of Fuel External Combustion Boilers Bituminous Coal & Petroleum Coke* Electric Generation Pulverized Coal: Dry Bottom	
3. Annual Process or Fuel Usage Rate 1347698	4. Ozone Season Daily Process or Fuel Usage Rate 4008	5. SCC Unit TONS BURNED
6. Fuel Average % Sulfur 3.06	7. Fuel Average % Ash 9.56	8. Fuel Heat Content (mmBtu/SCC Unit) 22.06

(2) EMISSIONS INFORMATION

1a. Pollutant 'a' Carbon Monoxide, CO		CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2a. Annual Emissions (ton/year) 404	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 3	
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x CO Rate) / 2000 See attached sheet for calculations			

1b. Pollutant 'b' Nitrogen Oxides, NOx		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2b. Annual Emissions (ton/year) 7554 *	3b. Ozone Season Daily Emissions (lb/day) **	4b. Emissions Method Code 1	
5b. Emissions Calculation (Show separately both annual and daily emissions calculations) CEM Data *NOx emissions are from coal and #2 oil. **CEMs do not provide individual NOx emissions, by month, due to being a common stack.			

1c. Pollutant 'c' Lead, Pb - Total (elemental and lead compounds)		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2c. Annual Emissions (ton/year) 9	3c. Ozone Season Daily Emissions (lb/day) N/A N/A	4c. Emissions Method Code 3	
5c. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Pb Rate) / 2000 See attached sheet for calculations			

(2) EMISSIONS INFORMATION (Continued)

1d. Pollutant 'd' PM Particulate Matter - Total		CAS No.	[] Below Threshold [] Not Emitted
2d. Annual Emissions (ton/year) 104	3d. Ozone Season Daily Emissions (lb/day) N/A	4d. Emissions Method Code 2	
5d. Emissions Calculation (Show separately both annual and daily emissions calculations) (MMBtu x PM Rate) / 2000 See attached sheet for calculations			

1e. Pollutant 'e' PM - 10 Particulate Matter - PM 10		CAS No.	[] Below Threshold [] Not Emitted
2e. Annual Emissions (ton/year) 104	3e. Ozone Season Daily Emissions (lb/day) N/A	4e. Emissions Method Code 2	
5e. Emissions Calculation (Show separately both annual and daily emissions calculations) (MMBtu x PM Rate) / 2000 See attached sheet for calculations			

1f. Pollutant 'f' SO2 Sulfur Dioxide		CAS No. 7446-09-5	[] Below Threshold [] Not Emitted
2f. Annual Emissions (ton/year) 5844 *	3f. Ozone Season Daily Emissions (lb/day) N/A	4f. Emissions Method Code 1	
5f. Emissions Calculation (Show separately both annual and daily emissions calculations) *SO2 emissions are from coal and #2 oil. CEM Data			

1g. Pollutant 'g' VOC		CAS No.	[] Below Threshold [] Not Emitted
2g. Annual Emissions (ton/year) 47	3g. Ozone Season Daily Emissions (lb/day) 283	4g. Emissions Method Code 3	
5g. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x VOC Rate) / 2000 See attached sheet for calculations			

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-005-01	2. Description of Process or Type of Fuel External Combustion Boilers Distillate Oil Electric Generation Grades 1 and 2 Oil	
3. Annual Process or Fuel Usage Rate 273.37	4. Ozone Season Daily Process or Fuel Usage Rate 0.20	5. SCC Unit 1000 Gallons Burned
6. Fuel Average % Sulfur .17	7. Fuel Average % Ash <0.001	8. Fuel Heat Content (mmBtu/SCC Unit) 137.974

(2) EMISSIONS INFORMATION

1a. Pollutant 'a' Carbon Monoxide, CO		CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2a. Annual Emissions (ton/year) 1	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 1	
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x CO Rate) / 2000 See attached page for calculations			
1b. Pollutant 'b' Nitrogen Oxides, NOx		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2b. Annual Emissions (ton/year) *	3b. Ozone Season Daily Emissions (lb/day) **	4b. Emissions Method Code 3	
5b. Emissions Calculation (Show separately both annual and daily emissions calculations) CEM Data *NOx emission for #2 oil are included in the NOx emissions reported for coal. **CEMs do not provide individual NOx emissions, by month, due to being a common stack.			
1c. Pollutant 'c' Lead, Pb - Total (elemental and lead compounds)		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2c. Annual Emissions (ton/year) 0	3c. Ozone Season Daily Emissions (lb/day) N/A	4c. Emissions Method Code 3	
5c. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Pb Rate) / 2000 See attached sheet for calculations.			

(2) EMISSIONS INFORMATION (Continued)

1d. Pollutant 'd' PM Particulate Matter - Total			CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2d. Annual Emissions (ton/year) .27	3d. Ozone Season Daily Emissions (lb/day) N/A	4d. Emissions Method Code 1		
5d. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x PM Rate)/2000 See attached sheet for calculations				

1e. Pollutant 'e' PM - 10 Particulate Matter - PM 10			CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2e. Annual Emissions (ton/year) .14	3e. Ozone Season Daily Emissions (lb/day) N/A	4e. Emissions Method Code 1		
5e. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x PM10 Rate)/2000 See attached sheet for calculations				

1f. Pollutant 'f' SO2 Sulfur Dioxide			CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2f. Annual Emissions (ton/year) *	3f. Ozone Season Daily Emissions (lb/day) N/A	4f. Emissions Method Code 1		
5f. Emissions Calculation (Show separately both annual and daily emissions calculations) *SO2 emissions for #2 oil are included in the SO2 emissions reported for coal. CEM Data				

1g. Pollutant 'g' VOC			CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2g. Annual Emissions (ton/year) 0	3g. Ozone Season Daily Emissions (lb/day) 0	4g. Emissions Method Code 3		
5g. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x VOC Rate) / 2000				

Facility ID: 0570039

Emissions Unit ID: 005

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description BIG BEND STATION COMBUST. TURBINE #2 - FIRED BY NO. 2 FUEL O		
2. Emissions Unit ID 005	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number A029-174596	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

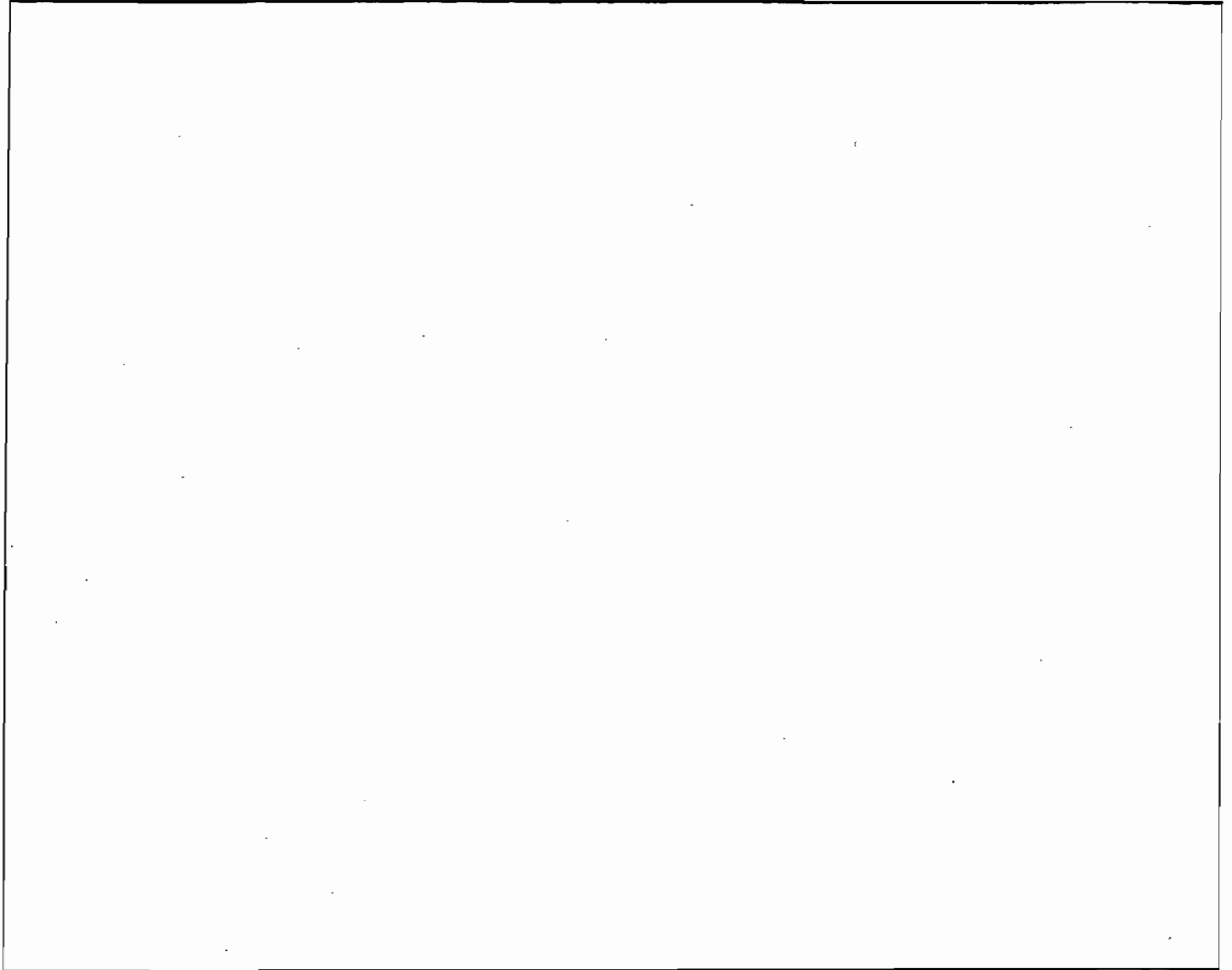
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day days/week	2. Total Operation During Year (hours/year) 140.5
3. Percent Hours of Operation by Season DJF: 7 MAM: 7 JJA: 76 SON: 10	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season) 5

Facility ID: 0570039

Emissions Unit ID: 005

D. EMISSIONS UNIT COMMENT

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E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 2-01-001-01	2. Description of Process or Type of Fuel Internal Combustion Engines Electric Generation Distillate Oil (Diesel) Turbine	
3. Annual Process or Fuel Usage Rate 1126.45	4. Ozone Season Daily Process or Fuel Usage Rate 9.04	5. SCC Unit 1000 Gallons Burned
6. Fuel Average % Sulfur .17	7. Fuel Average % Ash <0.001	8. Fuel Heat Content (mmBtu/SCC Unit) 137.974

(2) EMISSIONS INFORMATION

1a. Pollutant CO Carbon Monoxide			CAS No. 630-08-0	[] Below Threshold [] Not Emitted
2a. Annual Emissions (ton/year) 9	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 3		
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x CO Rate) / 2000 See attached sheet for calculations				

1b. Pollutant NOX Nitrogen Oxides			CAS No. 10102-44-0	[] Below Threshold [] Not Emitted
2b. Annual Emissions (ton/year) 38.19	3b. Ozone Season Daily Emissions (lb/day) 613	4b. Emissions Method Code 3		
5b. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x NOx Rate) / 2000 See attached sheet for calculations				

1c. Pollutant PB Lead - Total (elemental lead and lead compounds)			CAS No.	[] Below Threshold [] Not Emitted
2c. Annual Emissions (ton/year) 0	3c. Ozone Season Daily Emissions (lb/day) N/A	4c. Emissions Method Code 3		
5c. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Pb Rate) / 2000 See attached sheet for calculations				

(2) EMISSIONS INFORMATION (Continued)

1d. Pollutant PM CAS No. [] Below Threshold Particulate Matter - Total [] Not Emitted		
2d. Annual Emissions (ton/year) 2.82	3d. Ozone Season Daily Emissions (lb/day) N/A	4d. Emissions Method Code 1
5d. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Heat Value x PM Rate) / 2000 See attached sheet for calculations		

1e. Pollutant PM10 CAS No. [] Below Threshold Particulate Matter - PM10 [] Not Emitted		
2e. Annual Emissions (ton/year) 2.70	3e. Ozone Season Daily Emissions (lb/day) N/A	4e. Emissions Method Code 1
5e. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Heat Value x PM Rate) / 2000 See attached sheet for calculations		

1f. Pollutant SO2 CAS No. 7446-09-5 [] Below Threshold Sulfur Dioxide [] Not Emitted		
2f. Annual Emissions (ton/year) 12.82	3f. Ozone Season Daily Emissions (lb/day) N/A	4f. Emissions Method Code 1
5f. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Heat Value x SO2 Rate) / 2000 See attached sheet for calculations		

1g. Pollutant VOC CAS No. [] Below Threshold Volatile Organic Compounds [] Not Emitted		
2g. Annual Emissions (ton/year) 3	3g. Ozone Season Daily Emissions (lb/day) 43	4g. Emissions Method Code 3
5g. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x VOC Rate) / 2000 See attached sheet for calculations		

Facility ID: 0570039

Emissions Unit ID: 006

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description GAS TURBINE #3 - WESTINGHOUSE TURBINE FIRED BY NO. 2 FUEL OIL		
2. Emissions Unit ID 006	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number A029-174611	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

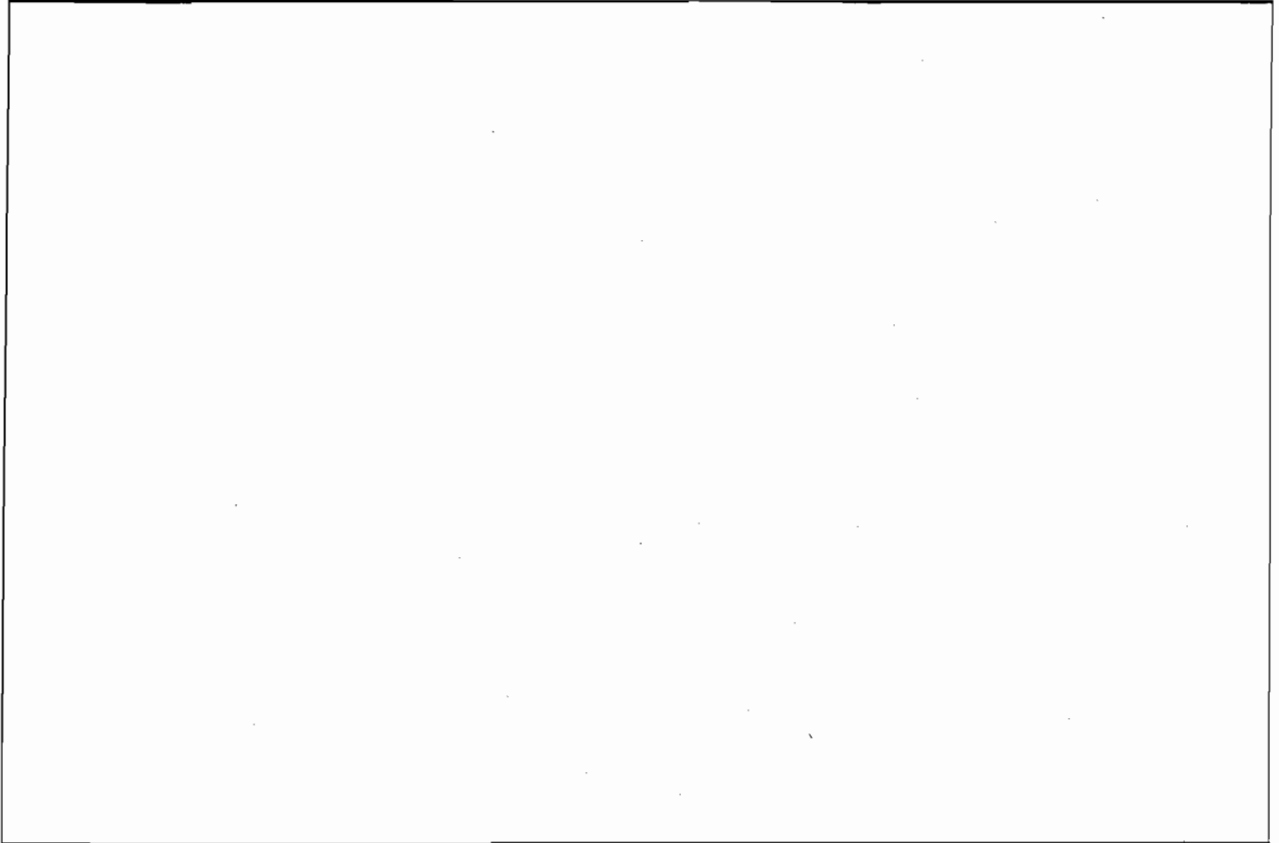
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day days/week	2. Total Operation During Year (hours/year) 190
3. Percent Hours of Operation by Season DJF: 2 MAM: 11 JJA: 69 SON: 18	
4. Average Ozone Season Operation (June 1 to August 31) 1 hours/day 7 days/week	5. Total Operation During Ozone Season (days/season) 5

Facility ID: 0570039

Emissions Unit ID: 006

D. EMISSIONS UNIT COMMENT

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Facility ID: 0570039

Emissions Unit ID: 006

SCC: 2-01-001-01

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 2-01-001-01	2. Description of Process or Type of Fuel Internal Combustion Engines Distillate Oil (Diesel) Electric Generation Turbine	
3. Annual Process or Fuel Usage Rate 1605.09	4. Ozone Season Daily Process or Fuel Usage Rate 11	5. SCC Unit 1000 GALLONS BURNED
6. Fuel Average % Sulfur .17	7. Fuel Average % Ash <0.001	8. Fuel Heat Content (mmBtu/SCC Unit) 137.974

(2) EMISSIONS INFORMATION

1a. Pollutant CO Carbon Monoxide			CAS No. 630-08-0	[] Below Threshold [] Not Emitted
2a. Annual Emissions (ton/year) 12	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 3		
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x CO Rate)/2000 See attached sheet for calculations				
1b. Pollutant NOX Nitrogen Oxides			CAS No. 10102-44-0	[] Below Threshold [] Not Emitted
2b. Annual Emissions (ton/year) 54	3b. Ozone Season Daily Emissions (lb/day) 748	4b. Emissions Method Code 3		
5b. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x NOx Rate) / 2000 See attached sheet for calculations				
1c. Pollutant PB Lead - Total (elemental lead and lead compounds)			CAS No.	[] Below Threshold [] Not Emitted
2c. Annual Emissions (ton/year) 0	3c. Ozone Season Daily Emissions (lb/day) N/A	4c. Emissions Method Code 3		
5c. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x PB Rate)/2000 See attached sheet for calculations				

(2) EMISSIONS INFORMATION (Continued)

1d. Pollutant PM CAS No. [] Below Threshold Particulate Matter - Total [] Not Emitted		
2d. Annual Emissions (ton/year) 4.01	3d. Ozone Season Daily Emissions (lb/day) N/A	4d. Emissions Method Code 1
5d. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Heat Value x PM Rate) / 2000 See attached sheet for calculations		

1e. Pollutant PM10 CAS No. [] Below Threshold Particulate Matter - PM10 [] Not Emitted		
2e. Annual Emissions (ton/year) 3.85	3e. Ozone Season Daily Emissions (lb/day) N/A	4e. Emissions Method Code 1
5e. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Heat Value x PM10 Rate) / 2000 See attached sheet for calculations		

1f. Pollutant SO₂ CAS No. 7446-09-5 [] Below Threshold Sulfur Dioxide [] Not Emitted		
2f. Annual Emissions (ton/year) 18.27	3f. Ozone Season Daily Emissions (lb/day) N/A	4f. Emissions Method Code 1
5f. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Heat Value x SO ₂ Rate) / 2000 See attached sheet for calculations		

1g. Pollutant VOC CAS No. [] Below Threshold Volatile Organic Compounds [] Not Emitted		
2g. Annual Emissions (ton/year) 4	3g. Ozone Season Daily Emissions (lb/day) 53	4g. Emissions Method Code 3
5g. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x VOC Rate) / 2000 See attached sheet for calculations		

Facility ID: 0570039

Emissions Unit ID: 007

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description GAS TURBINE #1 FIRED BY #2 FUEL OIL		
2. Emissions Unit ID 700	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number A029160257	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day days/week	2. Total Operation During Year (hours/year) 31
3. Percent Hours of Operation by Season DJF: 13 MAM: 14 JJA: 72 SON: 1	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season) 22

Facility ID: 0570039

Emissions Unit ID: 007

D. EMISSIONS UNIT COMMENT

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(2) EMISSIONS INFORMATION (Continued)

1d. Pollutant PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2d. Annual Emissions (ton/year) .21	3d. Ozone Season Daily Emissions (lb/day) N/A	4d. Emissions Method Code 1	
5d. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Heat Value x PM Rate) / 2000 See attached sheet for calculations			

1e. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2e. Annual Emissions (ton/year) .20	3e. Ozone Season Daily Emissions (lb/day) N/A	4e. Emissions Method Code 1	
5e. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Heat Value x PM Rate) / 2000 See attached sheet for calculations			

1f. Pollutant SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2f. Annual Emissions (ton/year) .95	3f. Ozone Season Daily Emissions (lb/day) N/A	4f. Emissions Method Code 1	
5f. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x Heat Value x SO2 Rate) / 2000 See attached sheet for calculations			

1g. Pollutant VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2g. Annual Emissions (ton/year) 0	3g. Ozone Season Daily Emissions (lb/day) 0	4g. Emissions Method Code 3	
5g. Emissions Calculation (Show separately both annual and daily emissions calculations) (Fuel Burned x VOC Rate) / 2000 See attached sheet for calculations			

Facility ID: 0570039

Emissions Unit ID: 008

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description BIG BEND STATION UNIT NO. 1 & NO. 2 FLY ASH SILO WITH BAGHOUSE		
2. Emissions Unit ID 008	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number A029-160255	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

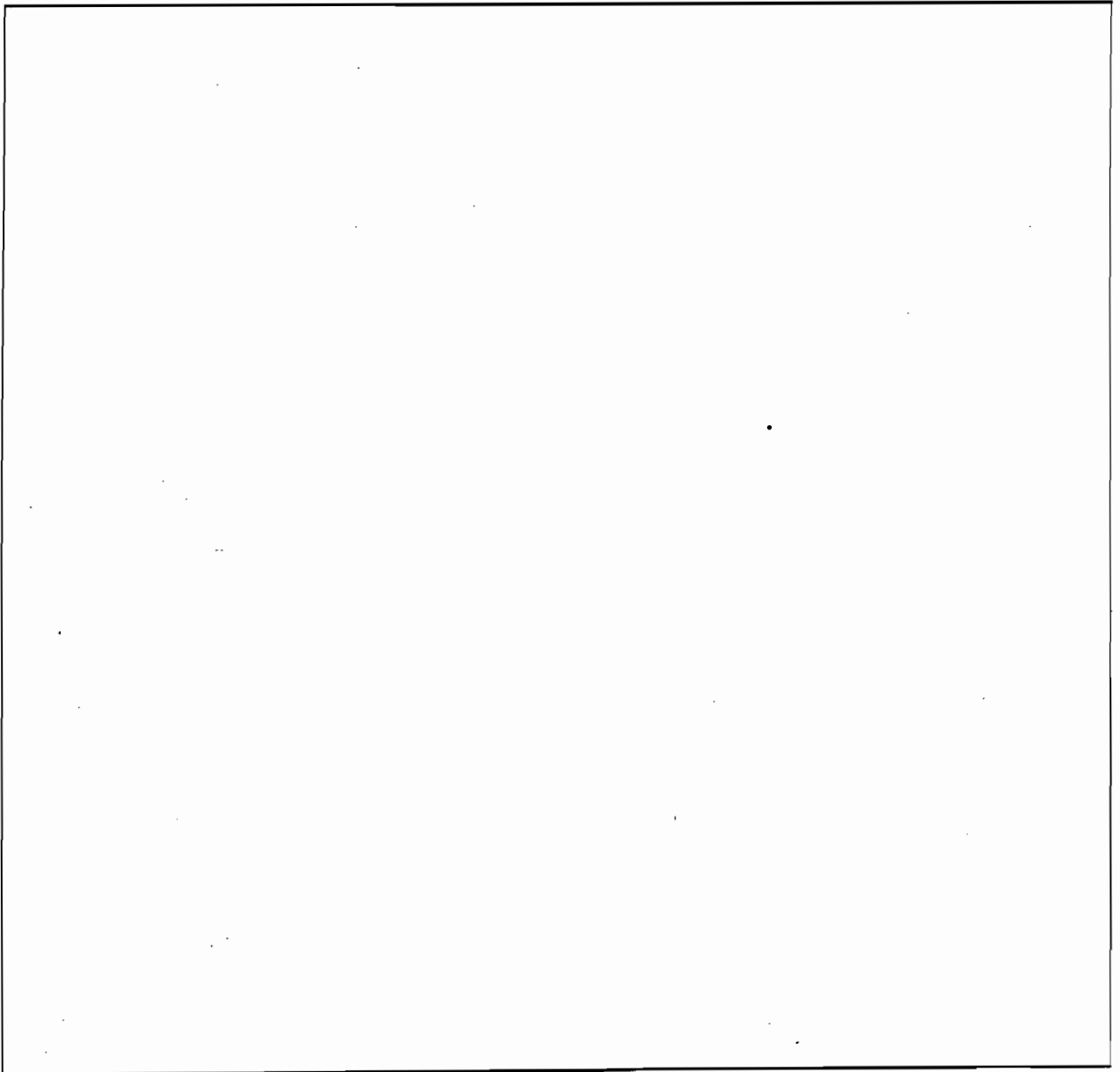
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 24 hours/day 7 days/week	2. Total Operation During Year (hours/year) 8760
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 008

D. EMISSIONS UNIT COMMENT

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E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-102-99	2. Description of Process or Type of Fuel Mineral Products Bulk Materials Storage Bins Mineral Products Other Not Classified TONS OF FLYASH STORED	
3. Annual Process or Fuel Usage Rate N/A	4. Ozone Season Daily Process or Fuel Usage Rate N/A	5. SCC Unit TONS PROCESSED
6. Fuel Average % Sulfur N/A	7. Fuel Average % Ash N/A	8. Fuel Heat Content (mmBtu/SCC Unit) N/A

(2) EMISSIONS INFORMATION

1a. Pollutant PM CAS No. [] Below Threshold Particulate Matter - Total [] Not Emitted		
2a. Annual Emissions (ton/year) 22.6	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 5
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (5.16 lb. part. / yr. x 8760 hrs/yr x 1 ton/ 2000 lbs) = 22.6 tons		
1b. Pollutant 'b' CAS No. [] Below Threshold [] Not Emitted		
2b. Annual Emissions (ton/year)	3b. Ozone Season Daily Emissions (lb/day)	4b. Emissions Method Code
5b. Emissions Calculation (Show separately both annual and daily emissions calculations)		
1c. Pollutant 'c' CAS No. [] Below Threshold [] Not Emitted		
2c. Annual Emissions (ton/year)	3c. Ozone Season Daily Emissions (lb/day)	4c. Emissions Method Code
5c. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID: 0570039

Emissions Unit ID: 009

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description FLY-ASH SILO FOR UNIT # 3 with Baghouse		
2. Emissions Unit ID 009	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number A029-161082	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 24 hours/day 7 days/week	2. Total Operation During Year (hours/year) 8760
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 009

D. EMISSIONS UNIT COMMENT

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Facility ID: 0570039

Emissions Unit ID: 009

SCC: 3-05-102-99

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-102-99	2. Description of Process or Type of Fuel Mineral Products Bulk Materials Storage Bins Mineral Products Other Not Classified SILO LOADING	
3. Annual Process or Fuel Usage Rate N/A	4. Ozone Season Daily Process or Fuel Usage Rate N/A	5. SCC Unit TONS PROCESSED
6. Fuel Average % Sulfur N/A	7. Fuel Average % Ash N/A	8. Fuel Heat Content (mmBtu/SCC Unit) N/A

(2) EMISSIONS INFORMATION

1a. Pollutant PM Particulate Matter - Total			CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2a. Annual Emissions (ton/year) 22.6	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 5		
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (5.16 lbs. part. / hr. x 8760 hr. / yr. x 1 ton / 2000 lbs) = 22.6 ton				
1b. Pollutant 'b'			CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2b. Annual Emissions (ton/year)	3b. Ozone Season Daily Emissions (lb/day)	4b. Emissions Method Code		
5b. Emissions Calculation (Show separately both annual and daily emissions calculations)				
1c. Pollutant 'c'			CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2c. Annual Emissions (ton/year)	3c. Ozone Season Daily Emissions (lb/day)	4c. Emissions Method Code		
5c. Emissions Calculation (Show separately both annual and daily emissions calculations)				

Facility ID: 0570039

Emissions Unit ID: 010

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description BIG BEND COAL YARD. PERMITTED UNDER PA79-12 & PSD-FL-040 P		
2. Emissions Unit ID 010	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number PA 79-12 & PSD-FL-040	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? N/A
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

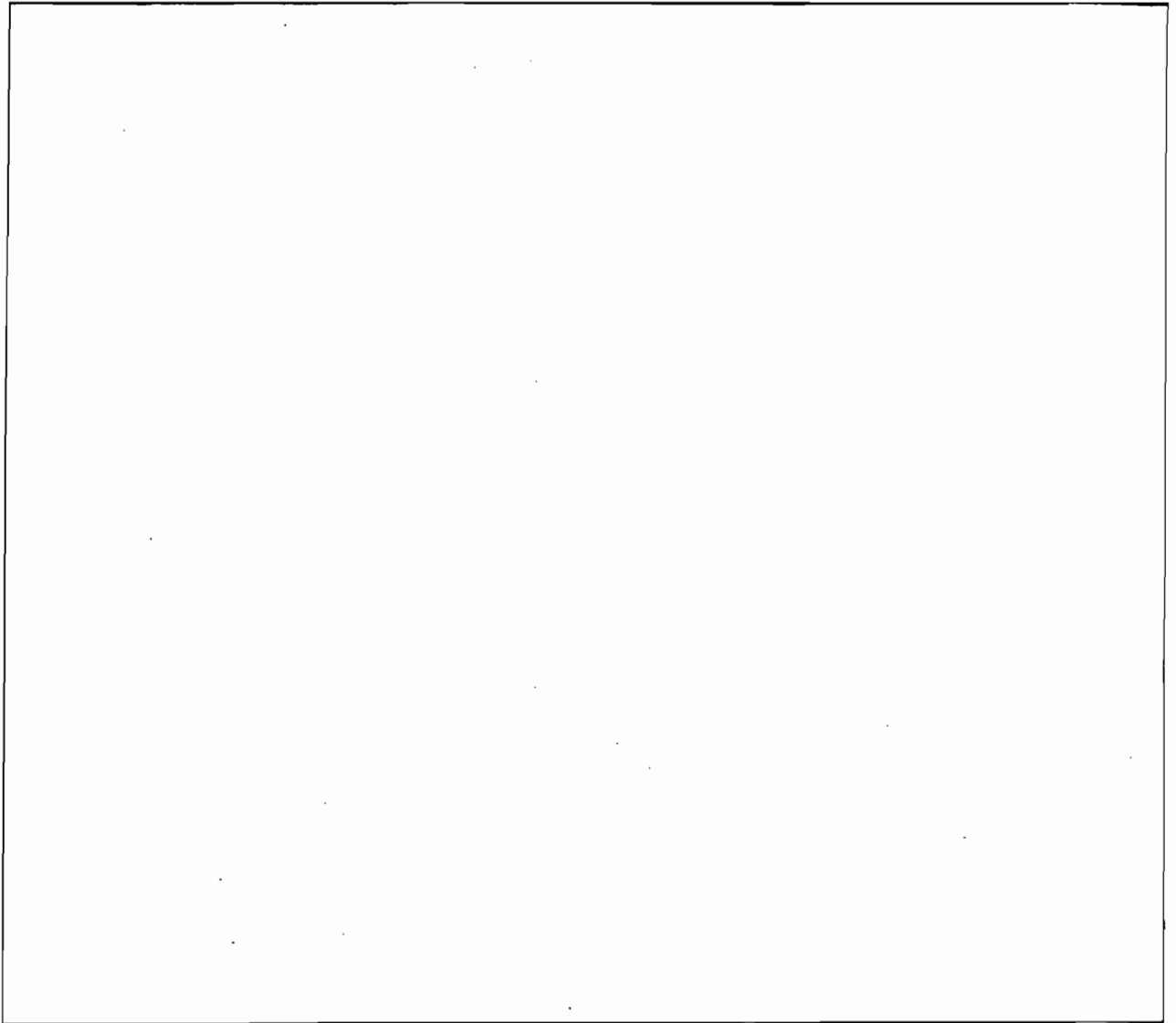
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 24 hours/day 7 days/week	2. Total Operation During Year (hours/year) 8760
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 010

D. EMISSIONS UNIT COMMENT

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Facility ID: 0570039

Emissions Unit ID: 010

SCC: 3-05-103-03

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 03-05-103-03	2. Description of Process or Type of Fuel Mineral Products Bulk Materials Open Stockpiles Mineral Products Coal EMISSIONS BASED ON THRUPUT OF ALL 4 UNITS	
3. Annual Process or Fuel Usage Rate 4737482	4. Ozone Season Daily Process or Fuel Usage Rate N/A	5. SCC Unit TONS PROCESSED
6. Fuel Average % Sulfur N/A	7. Fuel Average % Ash N/A	8. Fuel Heat Content (mmBtu/SCC Unit) N/A

(2) EMISSIONS INFORMATION

1a. Pollutant PM CAS No. [] Below Threshold Particulate Matter - Total [] Not Emitted		
2a. Annual Emissions (ton/year) 603	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 5
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (4737482 Tons of coal throughput for year x 121 tons emission/ 951000 tons of coal) = 603		
1b. Pollutant 'b' CAS No. [] Below Threshold [] Not Emitted		
2b. Annual Emissions (ton/year)	3b. Ozone Season Daily Emissions (lb/day)	4b. Emissions Method Code
5b. Emissions Calculation (Show separately both annual and daily emissions calculations)		
1c. Pollutant 'c' CAS No. [] Below Threshold [] Not Emitted		
2c. Annual Emissions (ton/year)	3c. Ozone Season Daily Emissions (lb/day)	4c. Emissions Method Code
5c. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID: 0570039

Emissions Unit ID: 011

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description TRUCK UNLOADING OF LIMESTONE		
2. Emissions Unit ID 011	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number PA 79-12	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

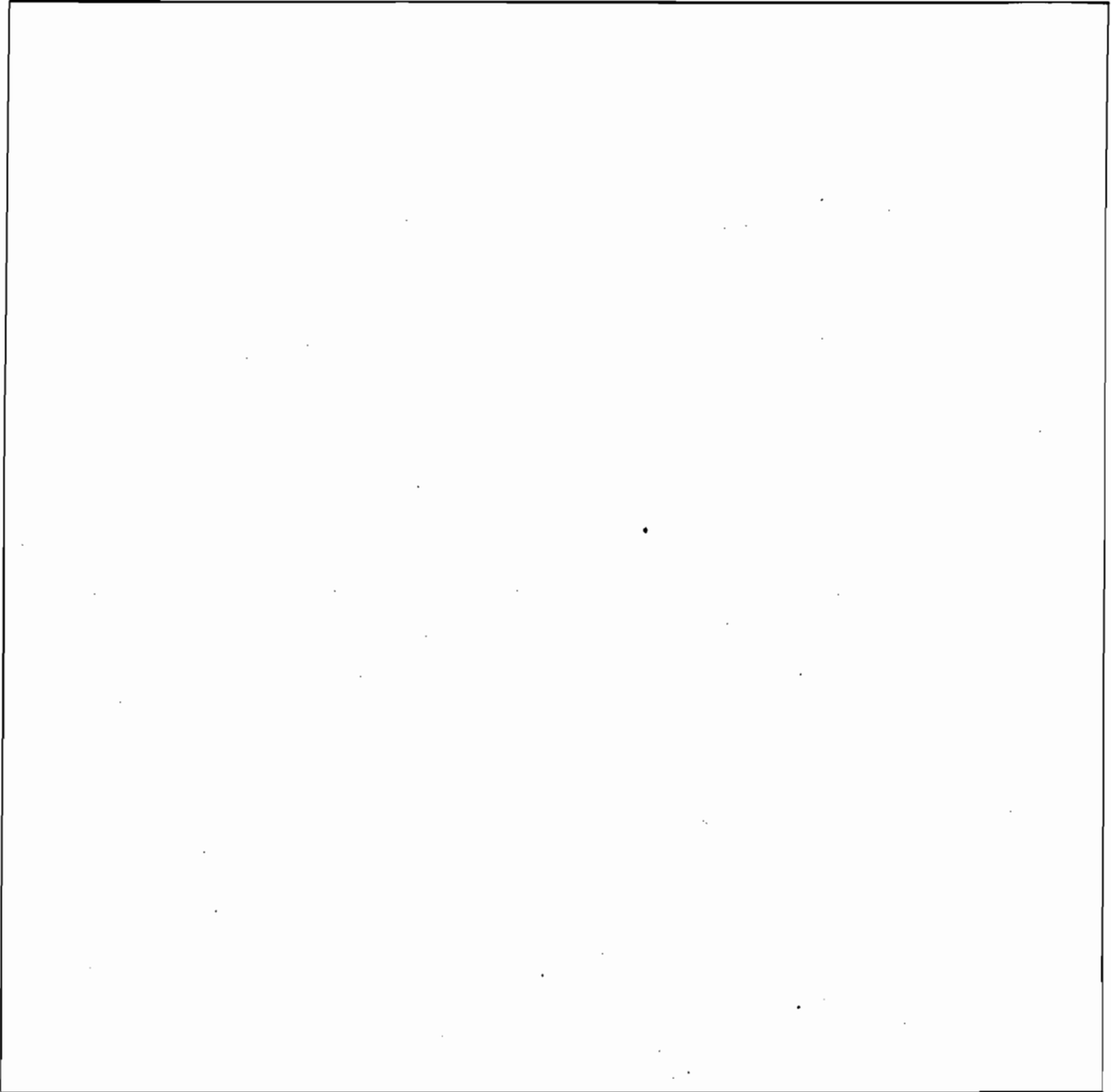
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 1 hours/day 5 days/week	2. Total Operation During Year (hours/year) 260 est.
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 011

D. EMISSIONS UNIT COMMENT

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Facility ID: 0570039

Emissions Unit ID: 011

SCC: 3-05-105-05

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-105-05	2. Description of Process or Type of Fuel Mineral Products Bulk Materials Loading Operation Mineral Products Limestone	
3. Annual Process or Fuel Usage Rate N/A	4. Ozone Season Daily Process or Fuel Usage Rate N/A	5. SCC Unit TONS PROCESSED
6. Fuel Average % Sulfur N/A	7. Fuel Average % Ash N/A	8. Fuel Heat Content (mmBtu/SCC Unit) N/A

(2) EMISSIONS INFORMATION

1a. Pollutant PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2a. Annual Emissions (ton/year) 0.1	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 5	
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (0.65 lbs particulate / hr.) (260 hr. / yr.) (1 ton / 2000 lbs.) = 0.1 Ton			
1b. Pollutant 'b'		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2b. Annual Emissions (ton/year)	3b. Ozone Season Daily Emissions (lb/day)	4b. Emissions Method Code	
5b. Emissions Calculation (Show separately both annual and daily emissions calculations)			
1c. Pollutant 'c'		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2c. Annual Emissions (ton/year)	3c. Ozone Season Daily Emissions (lb/day)	4c. Emissions Method Code	
5c. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID: 0570039

Emissions Unit ID: 012

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description LIMESTONE SILO A W/2 BAGHOUSES. 1 IS 100% BACK-UP P		
2. Emissions Unit ID 012	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number PA 79 - 12	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? N/A
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

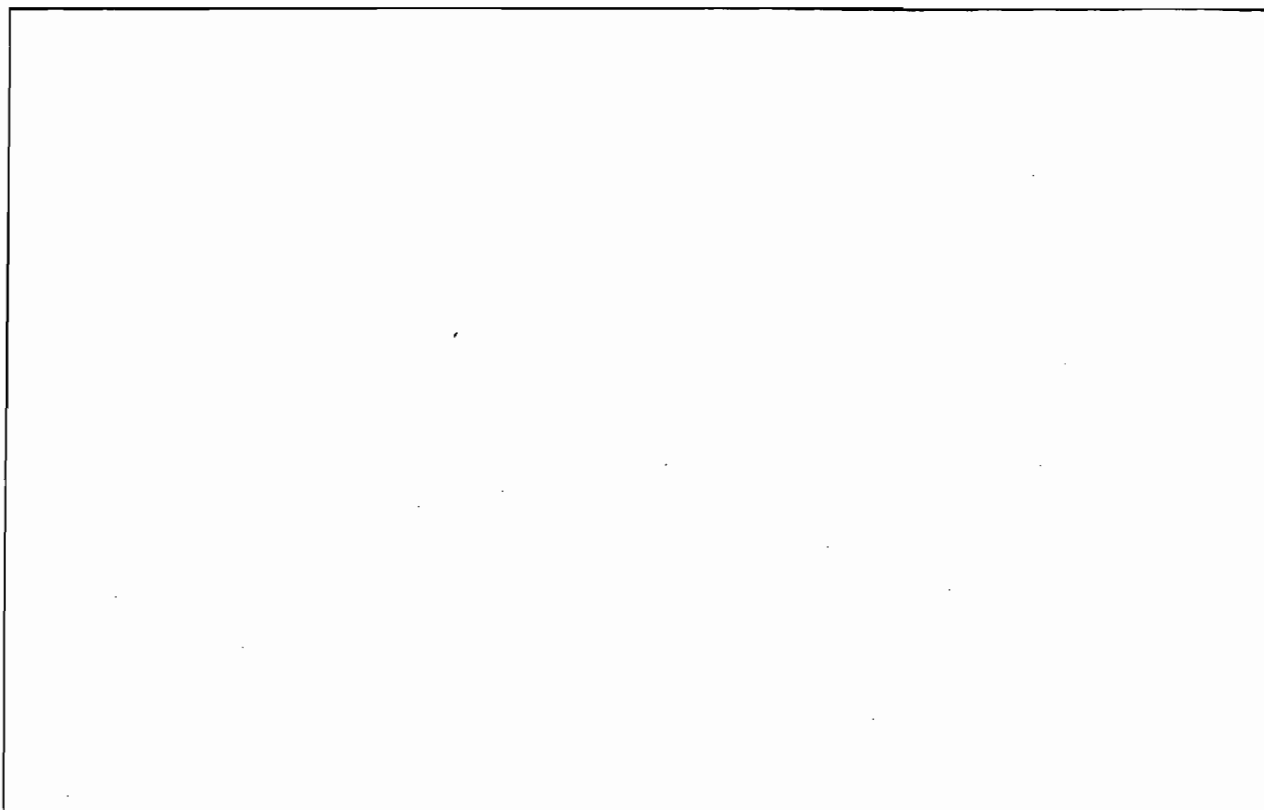
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 12 hours/day 7 days/week	2. Total Operation During Year (hours/year) 4380
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 012

D. EMISSIONS UNIT COMMENT

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Facility ID: 0570039

Emissions Unit ID: 012

SCC: 3-05-102-05

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-102-05	2. Description of Process or Type of Fuel Mineral Products Bulk Materials Storage Bins Mineral Products Limestone	
3. Annual Process or Fuel Usage Rate N/A	4. Ozone Season Daily Process or Fuel Usage Rate N/A	5. SCC Unit TONS PROCESSED
6. Fuel Average % Sulfur N/A	7. Fuel Average % Ash N/A	8. Fuel Heat Content (mmBtu/SCC Unit) N/A

(2) EMISSIONS INFORMATION

1a. Pollutant PM CAS No. [] Below Threshold Particulate Matter - Total [] Not Emitted		
2a. Annual Emissions (ton/year) 0.1	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 5
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (0.05 Lbs. Particulate / hr. X 4380 hr. / yr. X 1 ton/ 2000 lbs.) = 0.1		

1b. Pollutant 'b' CAS No. [] Below Threshold [] Not Emitted		
2b. Annual Emissions (ton/year)	3b. Ozone Season Daily Emissions (lb/day)	4b. Emissions Method Code
5b. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1c. Pollutant 'c' CAS No. [] Below Threshold [] Not Emitted		
2c. Annual Emissions (ton/year)	3c. Ozone Season Daily Emissions (lb/day)	4c. Emissions Method Code
5c. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID: 0570039

Emissions Unit ID: 013

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description LIMESTONE SILO B W/2 BAGHOUSES. 1 IS 100% BACK-UP P		
2. Emissions Unit ID 013	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number PA 79 - 12	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? N/A
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

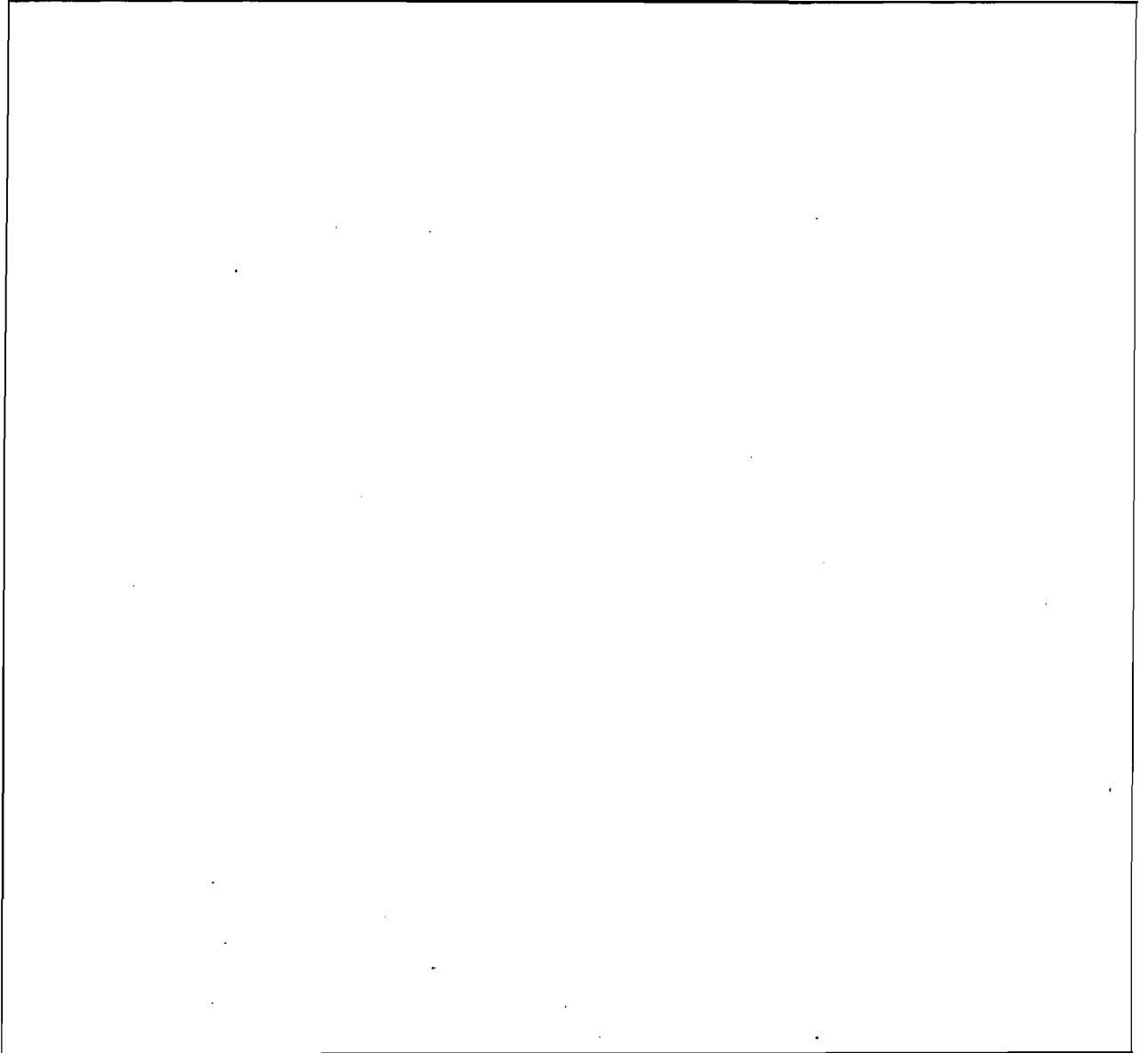
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 12 hours/day 7 days/week	2. Total Operation During Year (hours/year) 4380
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 013

D. EMISSIONS UNIT COMMENT

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E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-102-5	2. Description of Process or Type of Fuel Mineral Products Bulk Materials Storage Bins Mineral Products Limestone	
3. Annual Process or Fuel Usage Rate N/A	4. Ozone Season Daily Process or Fuel Usage Rate N/A	5. SCC Unit TONS PROCESSED
6. Fuel Average % Sulfur N/A	7. Fuel Average % Ash N/A	8. Fuel Heat Content (mmBtu/SCC Unit) N/A

(2) EMISSIONS INFORMATION

1a. Pollutant PM CAS No. [] Below Threshold Particulate Matter - Total [] Not Emitted		
2a. Annual Emissions (ton/year) 0.1	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 5
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (0.05 lbs. Part. / hr. x 4380 hr. / yr. x 1 ton/ 2000 lbs.) = 0.1		
1b. Pollutant 'b' CAS No. [] Below Threshold [] Not Emitted		
2b. Annual Emissions (ton/year)	3b. Ozone Season Daily Emissions (lb/day)	4b. Emissions Method Code
5b. Emissions Calculation (Show separately both annual and daily emissions calculations)		
1c. Pollutant 'c' CAS No. [] Below Threshold [] Not Emitted		
2c. Annual Emissions (ton/year)	3c. Ozone Season Daily Emissions (lb/day)	4c. Emissions Method Code
5c. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID: 0570039

Emissions Unit ID: 014

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description FLYASH SILO FOR UNIT #4			P
2. Emissions Unit ID 014	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y	
5. DEP Permit or PPS Number PA 79 - 12	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y	
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A	

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

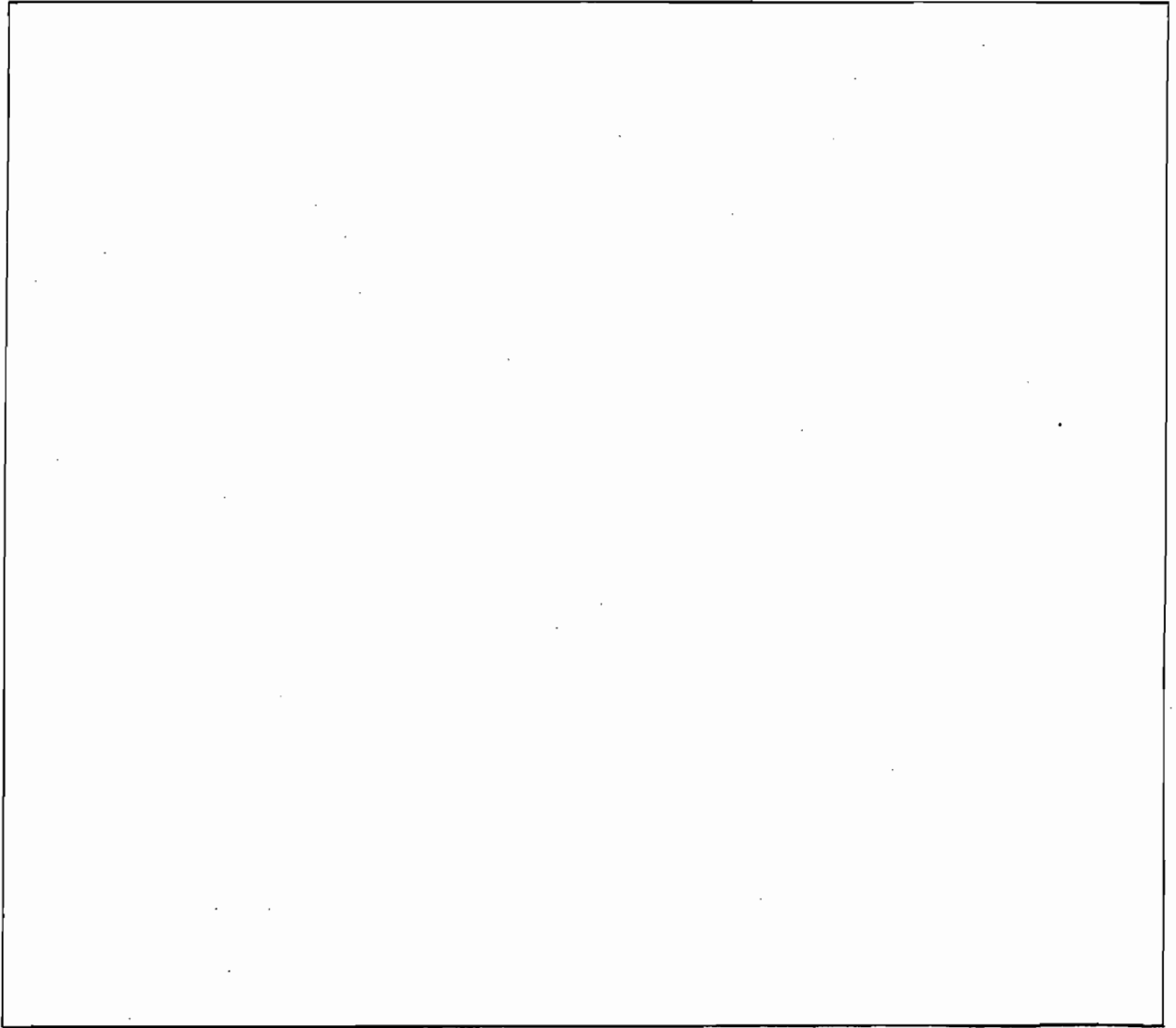
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 24 hours/day 7 days/week	2. Total Operation During Year (hours/year) 8760
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 014

D. EMISSIONS UNIT COMMENT

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Facility ID: 0570039

Emissions Unit ID: 014

SCC: 3-05-102-99

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-102-99	2. Description of Process or Type of Fuel Mineral Products Bulk Materials Storage Bins Mineral Products Other Not Classified	
3. Annual Process or Fuel Usage Rate N/A	4. Ozone Season Daily Process or Fuel Usage Rate N/A	5. SCC Unit TONS PROCESSED
6. Fuel Average % Sulfur N/A	7. Fuel Average % Ash N/A	8. Fuel Heat Content (mmBtu/SCC Unit) N/A

(2) EMISSIONS INFORMATION

1a. Pollutant PM CAS No. [] Below Threshold Particulate Matter - Total [] Not Emitted		
2a. Annual Emissions (ton/year) 1	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 5
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (.20 lbs part./hr x 8760 hr/yr x 1ton/2000lbs)= 1		
1b. Pollutant 'b' CAS No. [] Below Threshold [] Not Emitted		
2b. Annual Emissions (ton/year)	3b. Ozone Season Daily Emissions (lb/day)	4b. Emissions Method Code
5b. Emissions Calculation (Show separately both annual and daily emissions calculations)		
1c. Pollutant 'c' CAS No. [] Below Threshold [] Not Emitted		
2c. Annual Emissions (ton/year)	3c. Ozone Season Daily Emissions (lb/day)	4c. Emissions Method Code
5c. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID: 0570039

Emissions Unit ID: 015

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description UNIT 1 COAL BUNKER W/ROTO-CLONE		
2. Emissions Unit ID 015	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number A029163788	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? N/A
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a' SINGLE CYCLONE DEVICES
2b. Description of Control Equipment 'b'

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 8 hours/day 7 days/week	2. Total Operation During Year (hours/year) 2912 (est)
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 015

D. EMISSIONS UNIT COMMENT

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E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-102-03	2. Description of Process or Type of Fuel Mineral Products Bulk Materials Storage Bins Mineral Products Coal	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate N/A	5. SCC Unit TONS PROCESSED
6. Fuel Average % Sulfur N/A	7. Fuel Average % Ash N/A	8. Fuel Heat Content (mmBtu/SCC Unit) N/A

(2) EMISSIONS INFORMATION

1a. Pollutant PM Particulate Matter - Total			CAS No.	[] Below Threshold [] Not Emitted
2a. Annual Emissions (ton/year) 0.06	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 5		
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (0.0001209 lb. Part. / ton of coal x 1043843 ton coal / yr. x 1 ton/ 2000 lb.) = 0.06 tons/yr.				
1b. Pollutant 'b'			CAS No.	[] Below Threshold [] Not Emitted
2b. Annual Emissions (ton/year)	3b. Ozone Season Daily Emissions (lb/day)	4b. Emissions Method Code		
5b. Emissions Calculation (Show separately both annual and daily emissions calculations)				
1c. Pollutant 'c'			CAS No.	[] Below Threshold [] Not Emitted
2c. Annual Emissions (ton/year)	3c. Ozone Season Daily Emissions (lb/day)	4c. Emissions Method Code		
5c. Emissions Calculation (Show separately both annual and daily emissions calculations)				

Facility ID: 0570039

Emissions Unit ID: 016

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description UNIT 2 COAL BUNKER W/ROTO-CLONE		
2. Emissions Unit ID 016	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number A029163788	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? Y
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a' SINGLE CYCLONE DEVICES
2b. Description of Control Equipment 'b'

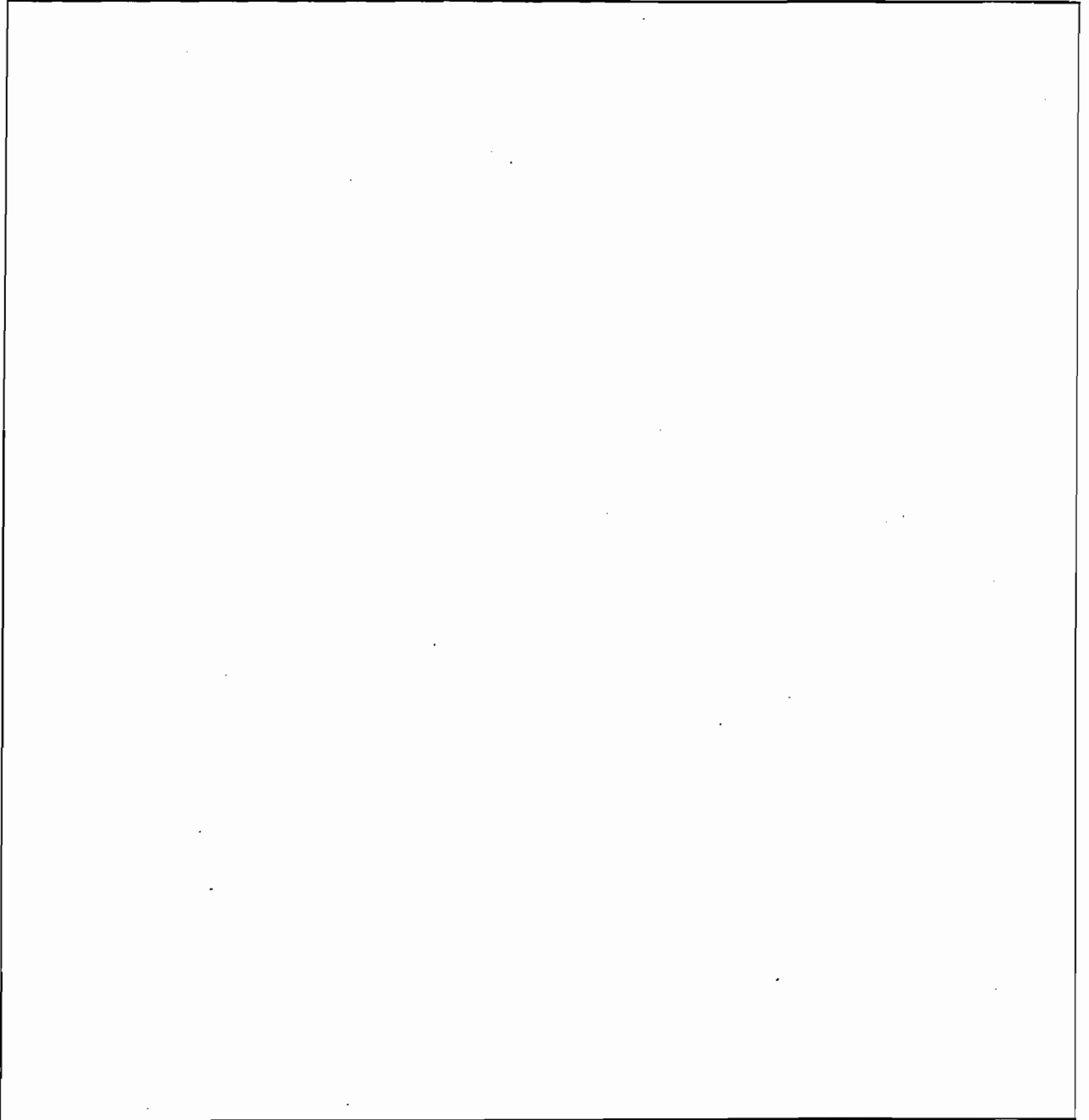
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 8 hours/day 7 days/week	2. Total Operation During Year (hours/year) 2912 (est)
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 016

D. EMISSIONS UNIT COMMENT

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E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-102-03	2. Description of Process or Type of Fuel Mineral Products Bulk Materials Storage Bins Mineral Products Coal	
3. Annual Process or Fuel Usage Rate N/A	4. Ozone Season Daily Process or Fuel Usage Rate N/A	5. SCC Unit TONS PROCESSED
6. Fuel Average % Sulfur N/A	7. Fuel Average % Ash N/A	8. Fuel Heat Content (mmBtu/SCC Unit) N/A

(2) EMISSIONS INFORMATION

1a. Pollutant PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2a. Annual Emissions (ton/year) 0.08	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 5	
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (0.0001209 lbs. Part. / ton x 1266912 tons coal / yr. x 1 ton/ 2000 lbs.) = .08			
1b. Pollutant 'b'		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2b. Annual Emissions (ton/year)	3b. Ozone Season Daily Emissions (lb/day)	4b. Emissions Method Code	
5b. Emissions Calculation (Show separately both annual and daily emissions calculations)			
1c. Pollutant 'c'		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2c. Annual Emissions (ton/year)	3c. Ozone Season Daily Emissions (lb/day)	4c. Emissions Method Code	
5c. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID: 0570039

Emissions Unit ID: 017

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description UNIT 3 COAL BUNKER W/ROTO-CLONE		
2. Emissions Unit ID 017	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number A029163788	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? N/A
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a' SINGLE CYCLONE DEVICES
2b. Description of Control Equipment 'b'

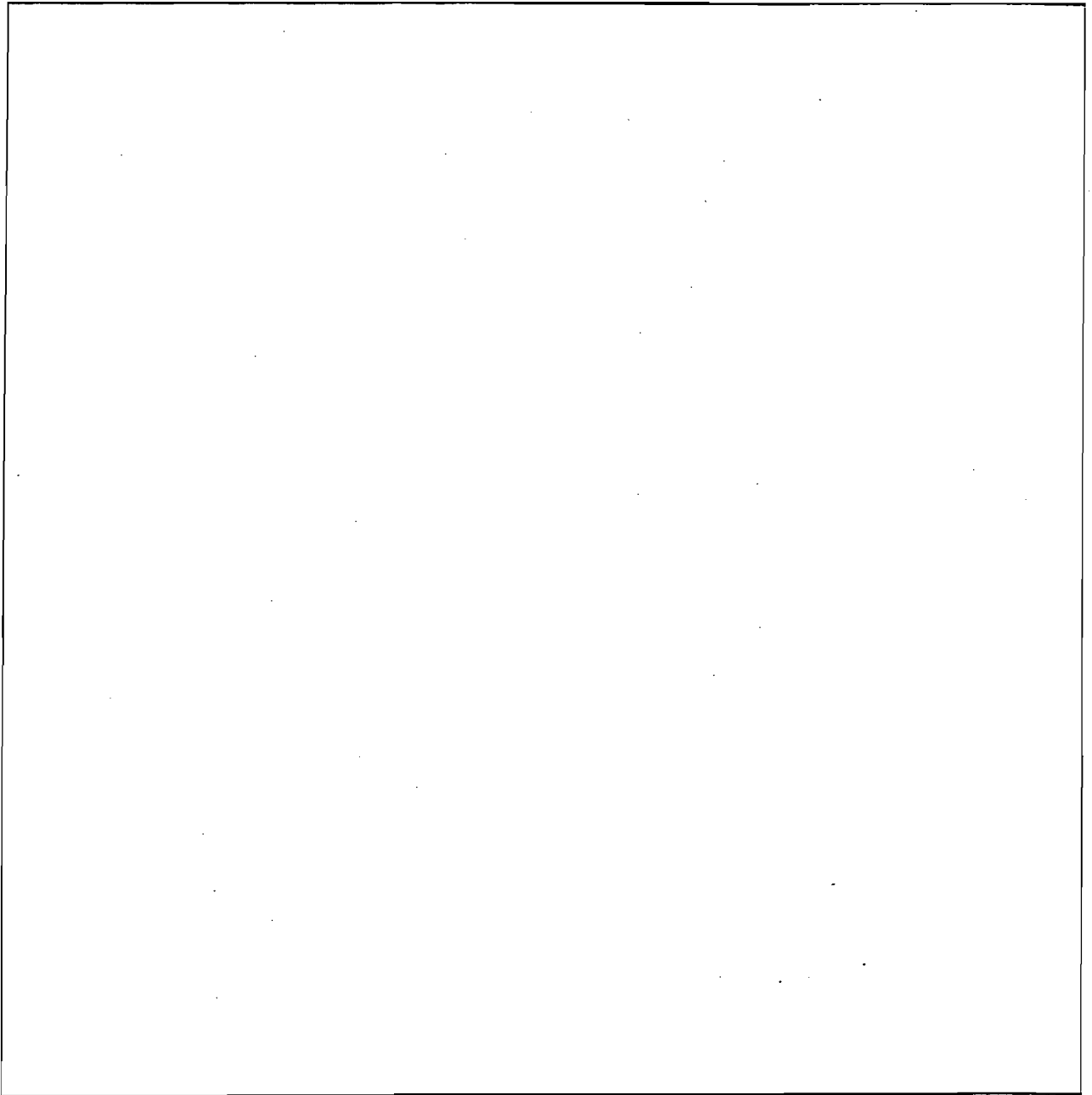
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 8 hours/day 7 days/week	2. Total Operation During Year (hours/year) 2912 (est)
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 017

D. EMISSIONS UNIT COMMENT

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E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-102-03	2. Description of Process or Type of Fuel Mineral Products Bulk Materials Storage Bins Mineral Products Coal	
3. Annual Process or Fuel Usage Rate N/A	4. Ozone Season Daily Process or Fuel Usage Rate N/A	5. SCC Unit TONS PROCESSED
6. Fuel Average % Sulfur N/A	7. Fuel Average % Ash N/A	8. Fuel Heat Content (mmBtu/SCC Unit) N/A

(2) EMISSIONS INFORMATION

1a. Pollutant PM CAS No. [] Below Threshold Particulate Matter - Total [] Not Emitted		
2a. Annual Emissions (ton/year) .07	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 5
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (0.0001209 lbs. Part. / ton coal x 1131277 tons coal / yr. x 1 ton / 2000 lbs.) = .07		

1b. Pollutant 'b' CAS No. [] Below Threshold [] Not Emitted		
2b. Annual Emissions (ton/year)	3b. Ozone Season Daily Emissions (lb/day)	4b. Emissions Method Code
5b. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1c. Pollutant 'c' CAS No. [] Below Threshold [] Not Emitted		
2c. Annual Emissions (ton/year)	3c. Ozone Season Daily Emissions (lb/day)	4c. Emissions Method Code
5c. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID: 0570039

Emissions Unit ID: 018

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description BIG BEND STATION UNIT NO. 1 AND NO. 2 OPEN BED TRUCK LOADOUT		
2. Emissions Unit ID 018	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number A029-160255	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? N/A
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

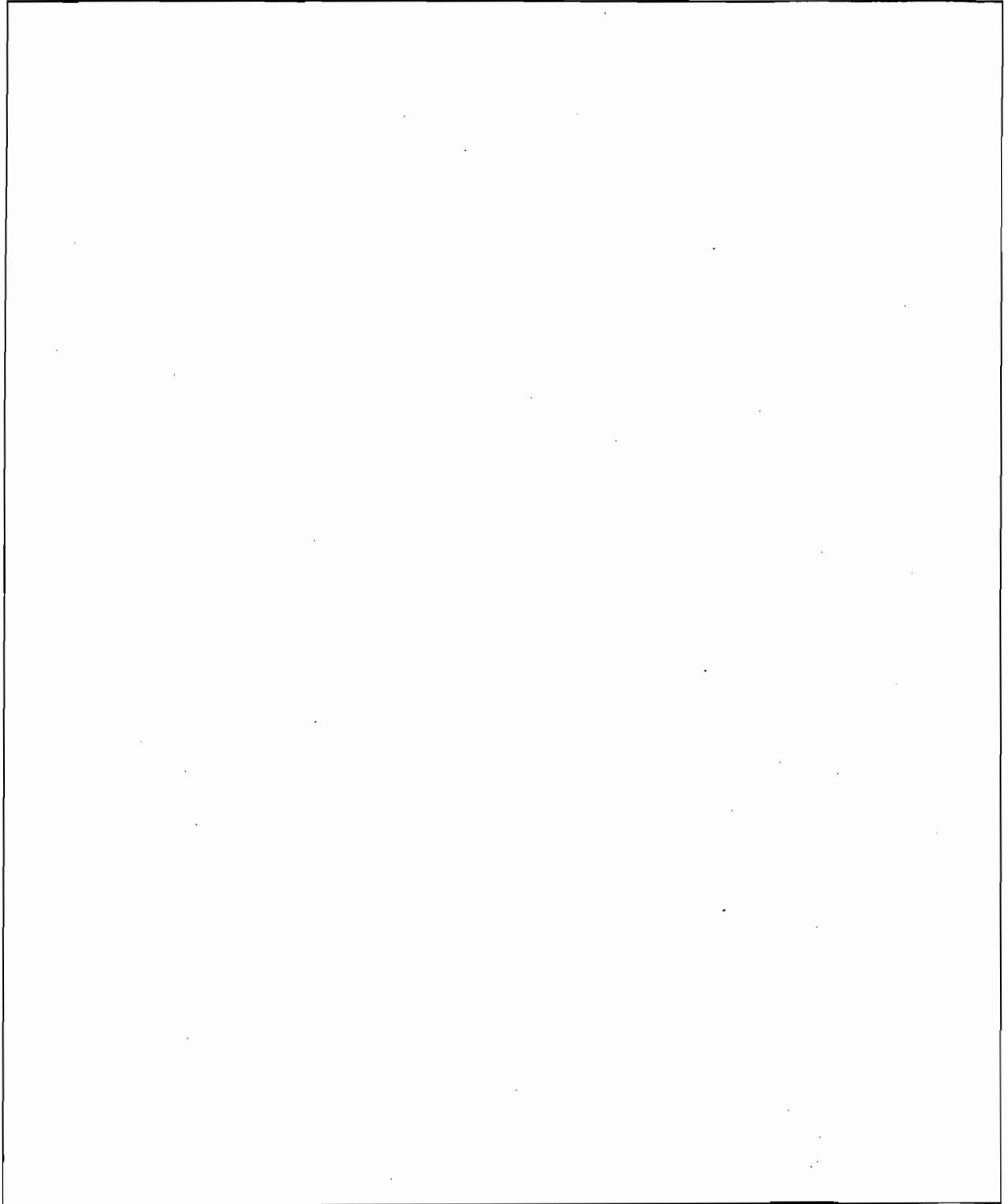
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 4 hours/day 5 days/week	2. Total Operation During Year (hours/year) 1040 (est)
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 018

D. EMISSIONS UNIT COMMENT

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Facility ID: 0570039

Emissions Unit ID: 019

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description FLY-ASH SILO FOR UNIT #3		
2. Emissions Unit ID 019	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number A029161082	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit? N/A
8. Emissions Unit Startup Date N/A	9. Long-term Reserve Shutdown Date N/A	10. Permanent Shutdown Date N/A

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation 4 hours/day 5 days/week	2. Total Operation During Year (hours/year) 1040 (est)
3. Percent Hours of Operation by Season DJF: 25 MAM: 25 JJA: 25 SON: 25	
4. Average Ozone Season Operation (June 1 to August 31) N/A hours/day N/A days/week	5. Total Operation During Ozone Season (days/season) N/A

Facility ID: 0570039

Emissions Unit ID: 019

D. EMISSIONS UNIT COMMENT

A large, empty rectangular box with a thin black border, occupying the central portion of the page. It is intended for providing comments related to the emissions unit.

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-105-99	2. Description of Process or Type of Fuel Mineral Products Bulk Materials Loading Operation Mineral Products Other Not Classified	
3. Annual Process or Fuel Usage Rate N/A	4. Ozone Season Daily Process or Fuel Usage Rate N/A	5. SCC Unit TONS PROCESSED
6. Fuel Average % Sulfur N/A	7. Fuel Average % Ash N/A	8. Fuel Heat Content (mmBtu/SCC Unit) N/A

(2) EMISSIONS INFORMATION

1a. Pollutant PM CAS No. [] Below Threshold Particulate Matter - Total [] Not Emitted		
2a. Annual Emissions (ton/year) 3	3a. Ozone Season Daily Emissions (lb/day) N/A	4a. Emissions Method Code 5
5a. Emissions Calculation (Show separately both annual and daily emissions calculations) (5.16 lbs. Part. / hr x 1040 hr./ yr. x 1 ton/ 2000. lbs.) = 3 tons / year		
1b. Pollutant 'b' CAS No. [] Below Threshold [] Not Emitted		
2b. Annual Emissions (ton/year)	3b. Ozone Season Daily Emissions (lb/day)	4b. Emissions Method Code
5b. Emissions Calculation (Show separately both annual and daily emissions calculations)		
1c. Pollutant 'c' CAS No. [] Below Threshold [] Not Emitted		
2c. Annual Emissions (ton/year)	3c. Ozone Season Daily Emissions (lb/day)	4c. Emissions Method Code
5c. Emissions Calculation (Show separately both annual and daily emissions calculations)		

TAMPA ELECTRIC COMPANY
ANNUAL HEAT INPUT AND EMISSIONS INFORMATION
BIG BEND STATION - BOILER No. 1
1997

Big Bend Boiler No. 1	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL TOTALS			
	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	ALL FUELS	
FUEL BURNED (see Note 1)	82867	25 88	95112	45 36	75221	21 60	0	0 00	37784	38 87	106036	48 31	117809	3 84	106564	62 81	101180	86 87	103683	45 23	100071	38 82	107273	46 17	1043843	463 85		
HEAT VALUE (see Note 2)	11954	137874	11408	137874	11191	137874	0	137874	11408	137874	11387	137874	11370	137874	11338	137874	11510	137874	11185	137874	11283	137874	11184	137874				
SO ₂ RATE (see Note 3)	2.48	0.17	2.33	0.17	3.10	0.17	0.00	0.17	2.58	0.17	3.35	0.17	3.15	0.17	3.17	0.17	3.10	0.17	3.03	0.17	3.18	0.17	2.81	0.17				
SO ₂ EMISSIONS (TONS)																											37318	
NO _x RATE (see Note 3)																												11844
NO _x EMISSIONS (TONS)																												
PM RATE (see Note 4)	0.04	2	0.04	2	0.04	2	0.04	2	0.04	2	0.04	2	0.04	2	0.04	2	0.04	2	0.04	2	0.04	2	0.04	2	0.04	2		
PM EMISSIONS (TONS)																												601
PM-10 RATE (see Note 4)	0.04	1	0.04	1	0.04	1	0.04	1	0.04	1	0.04	1	0.04	1	0.04	1	0.04	1	0.04	1	0.04	1	0.04	1	0.04	1		
PM-10 EMISSIONS (TONS)																												501
VOC RATE (see Note 3)	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2		
VOC EMISSIONS (TONS)																												37
CO RATE (see Note 3)	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5		
CO EMISSIONS (TONS)																												313
Pb RATE (see Note 3)	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004		
Pb EMISSIONS (TONS)																												7

Note 1: Units for "FUEL BURNED" are "TONS" for coal and "KGAL" for oil.

Note 2: Units for "HEAT VALUE" are "Btu/lb" for coal and "Btu/gal" for oil.

Note 3: Units for this parameter are "lb. Emissions/TON of Coal" for coal and "lb. Emissions/KGAL of Oil" for oil.

Note 4: Units for this parameter are "lb. Emissions/MMBtu" for coal and "lb. Emission/KGAL of Oil" for oil.

Note 5: TONS of SO₂, NO_x and Heat Input (mmBtu) are based on the end of the year CEM data and includes coal and oil.

Note 6: Emission rate information for Particulate and PM-10 are based on the highest average value found in either the soot blowing or non-soot blowing section of the most recently completed annual compliance stack test report and the annual CEM heat input total.

Note 7: PM-10 emissions are assumed to be equal to total particulate emission for coal for the purposes of this report.

TAMPA ELECTRIC COMPANY
ANNUAL HEAT INPUT AND EMISSIONS INFORMATION
BIG BEND STATION - BOILER No. 2
1997

A-1 (right 2) - (right 2)

Big Bend Boiler No. 2	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL TOTALS		ALL FUELS	
	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL		
FUEL BURNED (see Note 1)	104455	25 08	101187	45 35	120751	21 50	114288	8 48	113244	38 87	96311	48 31	112744	3 84	114787	82 81	98042	88 87	101186	45 23	101755	38 82	88172	48 17	128812	472 31		
HEAT VALUE (see Note 2)	11818	137874	11218	137874	11198	137874	11357	137874	11430	137874	11284	137874	11197	137874	11088	137874	11352	137874	11173	137874	11190	137874	11170	137874				
HEAT INPUT (MMBtu)																												30791389
SO ₂ RATE (lbs / MMBtu)	2.34	0.17	2.11	0.17	2.98	0.17	3.12	0.17	3.18	0.17	2.94	0.17	2.94	0.17	2.92	0.17	3.18	0.17	2.88	0.17	3.17	0.17	3.15	0.17				
SO ₂ EMISSIONS (TONS)																												44876
NO _x RATE (see Note 3)																												14244
NO _x EMISSIONS (TONS)																												824
PM RATE (see Note 4)	0.08	2	0.08	2	0.08	2	0.08	2	0.08	2	0.08	2	0.08	2	0.08	2	0.08	2	0.08	2	0.08	2	0.08	2	0.08	2		
PM EMISSIONS (TONS)																												824
PM-10 RATE (see Note 4)	0.08	1	0.08	1	0.08	1	0.08	1	0.08	1	0.08	1	0.08	1	0.08	1	0.08	1	0.08	1	0.08	1	0.08	1	0.08	1		
PM-10 EMISSIONS (TONS)																												824
VOC RATE (see Note 3)	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2		
VOC EMISSIONS (TONS)	4	0	4	0	4	0	4	0	4	0	3	0	4	0	4	0	3	0	4	0	4	0	3	0	4	0	44	0
CO RATE (see Note 3)	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5		
CO EMISSIONS (TONS)	31	0	30	0	36	0	34	0	34	0	28	0	34	0	34	0	29	0	30	0	31	0	28	0	30	0	380	1
Pb RATE (see Note 3)	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004		
Pb EMISSIONS (TONS)	0.89	0.00	0.87	0.00	0.80	0.00	0.76	0.00	0.75	0.00	0.64	0.00	0.75	0.00	0.76	0.00	0.85	0.00	0.87	0.00	0.88	0.00	0.56	0.00	0.8	0		

Note 1: Units for "FUEL BURNED" are "TONS" for coal and "KGAL" for oil.

Note 2: Units for "HEAT VALUE" are "Btu/lb" for coal and "Btu/gal" for oil.

Note 3: Units for this parameter are "lb. Emissions/TON of Coal" for coal and "lb. Emissions/KGAL of Oil" for oil.

Note 4: Units for this parameter are "lb. Emissions/MMBtu" for coal and "lb. Emission/KGAL of Oil" for oil.

Note 5: TONS of SO₂, NO_x and Heat Input (mmBtu) are based on the end of the year CEM data and includes coal and oil.

Note 6: Emission rate information for Particulate and PM-10 are based on the highest average value found in either the soot blowing or non-soot blowing section of the most recently completed annual compliance stack test report and the annual CEM heat input total.

Note 7: PM-10 emissions are assumed to be equal to total particulate emission for coal for the purposes of this report.

**TAMPA ELECTRIC COMPANY
ANNUAL HEAT INPUT AND EMISSIONS INFORMATION
BIG BEND STATION - BOILER No. 3
1997**

Boiler No. 3	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL TOTALS		ALL FUELS	
	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL		
FUEL BURNED (see Note 1)	113067	25 68	78726	45 35	98938	21 50	118856	8 48	113997	38 87	103453	49 31	18615	3 84	78810	82 81	104437	86 87	113084	45 23	105185	38 82	86297	48 17	1131277	472 31		
HEAT VALUE (see Note 2)	11630	137874	11842	137874	11442	137874	11561	137874	11533	137874	11411	137874	11658	137874	11401	137874	11728	137874	11401	137874	11181	137874	11168	137874				
HEAT INPUT (MMBtu)																											24932302	
SO2 RATE (see Note 3)	1.47	0.17	1.80	0.17	2.41	0.17	0.98	0.17	1.34	0.17	1.00	0.17	0.70	0.17	1.08	0.17	0.51	0.17	0.83	0.17	0.54	0.17	0.61	0.17			14459	
SO2 EMISSIONS (TONS)																												14459
NOx RATE (see Note 4)																												8062
NOx EMISSIONS (TONS)																												8062
PM RATE (see Note 4)	0.11	2.0	0.11	2	0.11	2	0.11	2	0.11	2	0.11	2	0.11	2	0.11	2	0.11	2	0.11	2	0.11	2	0.11	2				
PM EMISSIONS (TONS)																												1371
PM-10 RATE (see Note 4)	0.11	1	0.11	1	0.11	1	0.11	1	0.11	1	0.11	1	0.11	1	0.11	1	0.11	1	0.11	1	0.11	1	0.11	1				
PM-10 EMISSIONS (TONS)																												1371
VOC RATE (see Note 3)	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2				
VOC EMISSIONS (TONS)	4	0	3	0	3	0	4	0	4	0	4	0	1	0	3	0	4	0	4	0	4	0	3	0			40	0
CO RATE (see Note 3)	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5				
CO EMISSIONS (TONS)	34	0	24	0	29	0	38	0	34	0	31	0	6	0	23	0	31	0	34	0	32	0	28	0			338	1
Pb RATE (see Note 3)	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004				
Pb EMISSIONS (TONS)	0.78	0.00	0.53	0.00	0.84	0.00	0.79	0.00	0.78	0.00	0.89	0.00	0.12	0.00	0.51	0.00	0.89	0.00	0.75	0.00	0.70	0.00	0.57	0.00			8	0

Note 1: Units for "FUEL BURNED" are "TONS" for coal and "KGAL" for oil.

Note 2: Units for "HEAT VALUE" are "Btu/lb" for coal and "Btu/gal" for oil.

Note 3: Units for this parameter are "lb. Emissions/TON of Coal" for coal and "lb. Emissions/KGAL of Oil" for oil.

Note 4: Units for this parameter are "lb. Emissions/MMBtu" for coal and "lb. Emission/KGAL of Oil" for oil.

Note 5: TONS of SO2, NOx and Heat Input (mmBtu) are based on the end of the year CEM data and includes coal and oil.

Note 6: Emission rate information for Particulate and PM-10 are based on the highest average value found in either the soot blowing or non-soot blowing section of the most recently completed annual compliance stack test report and the annual CEM heat input total.

Note 7: PM-10 emissions are assumed to be equal to total particulate emission for coal for the purposes of this report.

TAMPA ELECTRIC COMPANY
ANNUAL HEAT INPUT AND EMISSIONS INFORMATION
BIG BEND STATION - BOILER No. 4
1997

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Big Bend Boiler No. 4	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL TOTALS				
	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	ALL FUELS		
FUEL BURNED (see Note 1)	115545	38.61	55127	11.89	102530	61.58	113618	29.53	125840	33.00	127507	4.48	130113	1.89	111097	11.72	79606	49.08	130203	5.53	125904	25.05	130607	2.97	1347896	273.37			
HEAT VALUE (see Note 2)	11207	137974	11633	137974	10813	137974	10833	137974	11268	137974	11119	137974	11104	137974	10838	137974	10873	137974	10969	137974	10985	137974	10733	137974					
HEAT INPUT (MMBtu)																											34388850		
SO2 RATE (lb / MMBtu)	0.26	0.17	0.31	0.17	0.30	0.17	0.28	0.17	0.26	0.17	0.32	0.17	0.25	0.17	0.27	0.17	0.38	0.17	0.38	0.17	0.28	0.17	0.32	0.17					
SO2 EMISSIONS (TONS)																											5844		
NOx RATE (see Note 4)																											7884		
PM RATE (see Note 4)	0.008	2	0.008	2	0.008	2	0.008	2	0.008	2	0.008	2	0.008	2	0.008	2	0.008	2	0.008	2	0.008	2	0.008	2	0.008	2	104	0.27	104
PM-10 RATE (see Note 4)	0.008	1	0.008	1	0.008	1	0.008	1	0.008	1	0.008	1	0.008	1	0.008	1	0.008	1	0.008	1	0.008	1	0.008	1	0.008	1	104	0.14	104
VOC RATE (see Note 3)	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	0.07	0.2	47	0	47
CO RATE (see Note 3)	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	5	404	1	405
Pb RATE (see Note 3)	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	0.0133	0.0004	8	0	8

Note 1: Units for "FUEL BURNED" are "TONS" for coal and "KGAL" for oil.

Note 2: Units for "HEAT VALUE" are "Btu/lb" for coal and "Btu/gal" for oil.

Note 3: Units for this parameter are "lb. Emissions/TON of Coal" for coal and "lb. Emissions/KGAL of Oil" for oil.

Note 4: Units for this parameter are "lb. Emissions/MMBtu" for coal and "lb. Emission/KGAL of Oil" for oil.

Note 5: TONS of SO2, NOx and Heat Input (mmBtu) are based on the end of the year CEM data and includes coal and oil.

Note 6: Emission rate information for Particulate and PM-10 are based on the highest average value found in either the soot blowing or non-soot blowing section of the most recently completed annual compliance stack test report and the annual CEM heat input total.

Note 7: PM-10 emissions are assumed to be equal to total particulate emission for coal for the purposes of this report.

TAMPA ELECTRIC COMPANY
ANNUAL HEAT INPUT AND EMISSIONS INFORMATION
BIG BEND STATION - COMBUSTION TURBINE No. 1
1997

Big Bend Station	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL TOTALS		
	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	ALL FUELS
FUEL BURNED (see Note 1)	18.51		0.92		1.04		0.00		8.32		8.20		30.12		10.04		0.00		2.20		0.00		2.00		0	83.35	
HEAT VALUE (see Note 2)	137974		137974		137974		0		137974		137974		137974		137974		0		137974		0		137974		0	11500.13	11500
HEAT INPUT (MMBtu)	2692		127		143		0		1148		1269		4156		1385		0		304		0		276		0	11500.13	11500
SO ₂ RATE (see Note 3)	0.17		0.17		0.17		0.00		0.17		0.17		0.17		0.17		0.00		0.17		0.00		0.17		0	0.17	0.17
SO ₂ EMISSIONS (TONS)	0.22		0.01		0.01		0.00		0.10		0.11		0.35		0.12		0.00		0.03		0.00		0.02		0	0.67	1
NO _x RATE (see Note 3)	87.8		87.8		87.8		0		87.8		87.8		87.8		87.8		0		87.8		0		87.8		0	87.8	87.8
NO _x EMISSIONS (TONS)	0.98		0.03		0.04		0.00		0.28		0.31		1.02		0.34		0.00		0.07		0.00		0.07		0	2.83	3
PM RATE (see Note 4)	5		5		5		0		5		5		5		5		0		5		0		5		0	5	5
PM EMISSIONS (TONS)	0.05		0.00		0.00		0.00		0.02		0.02		0.08		0.03		0.00		0.01		0.00		0.01		0	0.21	0
PM ₁₀ RATE (see Note 4)	4.8		4.8		4.8		0		4.8		4.8		4.8		4.8		0		4.8		0		4.8		0	4.8	4.8
PM ₁₀ EMISSIONS (TONS)	0.05		0.00		0.00		0.00		0.02		0.02		0.07		0.02		0.00		0.01		0.00		0.00		0	0.20	0
VOC RATE (see Note 3)	4.77		4.77		4.77		0		4.77		4.77		4.77		4.77		0		4.77		0		4.77		0	4.77	4.77
VOC EMISSIONS (TONS)	0.05		0.00		0.00		0.00		0.02		0.02		0.07		0.02		0.00		0.01		0.00		0.00		0	0	0
CO RATE (see Note 3)	15.4		15.4		15.4		0		15.4		15.4		15.4		15.4		0		15.4		0		15.4		0	15.4	15.4
CO EMISSIONS (TONS)	0.15		0.01		0.01		0.00		0.09		0.07		0.23		0.08		0.00		0.02		0.00		0.02		0	1	1
Pb RATE (see Note 3)	0.0004		0.0004		0.0004		0		0.0004		0.0004		0.0004		0.0004		0		0.0004		0		0.0004		0	0.0004	0.0004
Pb EMISSIONS (TONS)	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0	0	0

Note 1: Units for "FUEL BURNED" are "TONS" for coal and "KGAL" for oil.

Note 2: Units for "HEAT VALUE" are "Btu/lb" for coal and "Btu/gal" for oil.

Note 3: Units for this parameter are "lb. Emissions/TON of Coal" for coal and "lb. Emissions/KGAL of Oil" for oil.

Note 4: Units for this parameter are "lb. Emissions/MMBtu" for coal and "lb. Emission/KGAL of Oil" for oil.

Note 5: Emission rate information for SO₂ is based on fuel sampling and analysis.

TAMPA ELECTRIC COMPANY
ANNUAL HEAT INPUT AND EMISSIONS INFORMATION
BIG BEND STATION - COMBUSTION TURBINE No. 2
1996

Big Bend CF No. 2	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL TOTALS			
	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	ALL FUELS	
FUEL BURNED (see Note 1)																												
HEAT VALUE (see Note 2)	86.14		5.25		9.89		14.74		50.52		79.42		436.09		315.86		74.25		40.59		0.00				13.70	0	1126.45	
HEAT INPUT (MMBtu)	137974		137974		137974		137974		137974		137974		137974		137974		137974		137974		137974		0		137974	0	155420.81	155421
SO2 RATE (see Note 3)	0.17		0.17		0.17		0.17		0.17		0.17		0.17		0.17		0.17		0.17		0.17		0.00		0.17	0	1.91	1.91
SO2 EMISSIONS (TONS)	0.96		0.06		0.11		0.17		0.58		0.90		4.86		3.80		0.85		0.46		0.00		0.00		0.18	0	12.83	13
NOx RATE (see Note 3)	67.8		67.8		67.8		67.8		67.8		67.8		67.8		67.8		67.8		67.8		67.8		0		67.8	0	67.8	67.8
NOx EMISSIONS (TONS)	2.92		0.18		0.34		0.50		1.71		2.89		14.78		10.71		2.52		1.38		0.00		0.00		0.46	0	38.19	38
PM RATE (see Note 4)	5		5		5		5		5		5		5		5		5		5		5		0		5	0	5	5
PM EMISSIONS (TONS)	0.22		0.01		0.02		0.04		0.13		0.20		1.09		0.79		0.19		0.10		0.00		0.00		0.03	0	2.82	3
PM-10 RATE (see Note 4)	4.8		4.8		4.8		4.8		4.8		4.8		4.8		4.8		4.8		4.8		4.8		0		4.8	0	4.8	4.8
PM-10 EMISSIONS (TONS)	0.21		0.01		0.02		0.04		0.12		0.19		1.05		0.78		0.18		0.10		0.00		0.00		0.03	0	2.70	3
VOC RATE (see Note 3)	4.77		4.77		4.77		4.77		4.77		4.77		4.77		4.77		4.77		4.77		4.77		0		4.77	0	4.77	4.77
VOC EMISSIONS (TONS)	0.21		0.01		0.02		0.04		0.12		0.19		1.04		0.75		0.18		0.10		0.00		0.00		0.03	0	3	3
CO RATE (see Note 3)	15.4		15.4		15.4		15.4		15.4		15.4		15.4		15.4		15.4		15.4		15.4		0		15.4	0	15.4	15.4
CO EMISSIONS (TONS)	0.06		0.04		0.06		0.11		0.39		0.61		3.38		2.43		0.57		0.31		0.00		0.00		0.11	0	8	8
Pb RATE (see Note 3)	0.0004		0.0004		0.0004		0.0004		0.0004		0.0004		0.0004		0.0004		0.0004		0.0004		0.0004		0		0.0004	0	0.0004	0.0004
Pb EMISSIONS (TONS)	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0	0	0

Note 1: Units for "FUEL BURNED" are "TONS" for coal and "KGAL" for oil.

Note 2: Units for "HEAT VALUE" are "Btu/lb" for coal and "Btu/gal" for oil.

Note 3: Units for this parameter are "lb. Emissions/TON of Coal" for coal and "lb. Emissions/KGAL of Oil" for oil.

Note 4: Units for this parameter are "lb. Emissions/MMBtu" for coal and "lb. Emission/KGAL of Oil" for oil.

Note 5: Emission rate information for SO2 is based on fuel sampling and analysis.

TAMPA ELECTRIC COMPANY
ANNUAL HEAT INPUT AND EMISSIONS INFORMATION
BIG BEND STATION - COMBUSTION TURBINE No. 3
1997

K- (Page 2) - (Page 2)

Big Bend CT No. 3	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL TOTALS			
	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	COAL	#2 OIL	ALL FUELS	
FUEL BURNED (see Note 1)	124.09		0.00		54.78		7.30		117.27		143.88		533.86		337.93		229.87		30.13		0.00		17.35				1805.09	
HEAT VALUE (see Note 2)	137974		0		137974		137974		137974		137974		137974		137974		137974		137974		0		137974					
HEAT INPUT (MMBtu)	17121		0		7558		1007		18180		19824		73635		48626		31716		5390		0		2394		0	221480.60	221481	
SO2 RATE (see Note 3)	0.17		0.00		0.17		0.17		0.17		0.17		0.17		0.17		0.17		0.17		0.00		0.17		0	9.17		
SO2 EMISSIONS (TONS)	1.41		0.00		0.84		0.09		1.36		1.69		8.26		3.96		2.70		0.46		0.00		0.20		0	18.78	19	
NOx RATE (see Note 3)	87.8		0		87.8		87.8		87.8		87.8		87.8		87.8		87.8		87.8		0		87.8		0	87.8	87.8	
NOx EMISSIONS (TONS)	4.21		0.00		1.88		0.25		3.98		4.87		18.09		11.46		7.79		1.33		0.00		0.59		0	54.41	54	
PM RATE (see Note 4)	5		0		5		5		5		5		5		5		5		5		0		5		0	5	5	
PM EMISSIONS (TONS)	0.31		0.00		0.14		0.02		0.29		0.38		1.33		0.84		0.57		0.10		0.00		0.04		0	4.01	4	
PM-10 RATE (see Note 4)	4.8		0		4.8		4.8		4.8		4.8		4.8		4.8		4.8		4.8		0		4.8		0	4.8	4.8	
PM-10 EMISSIONS (TONS)	0.30		0.00		0.13		0.02		0.26		0.34		1.28		0.81		0.55		0.08		0.00		0.04		0	3.85	4	
VOC RATE (see Note 3)	4.77		0		4.77		4.77		4.77		4.77		4.77		4.77		4.77		4.77		0		4.77		0	4.77	4.77	
VOC EMISSIONS (TONS)	0.30		0.00		0.13		0.02		0.26		0.34		1.27		0.81		0.55		0.08		0.00		0.04		0	4	4	
CO RATE (see Note 3)	15.4		0		15.4		15.4		15.4		15.4		15.4		15.4		15.4		15.4		0		15.4		0	15.4	15.4	
CO EMISSIONS (TONS)	0.98		0.00		0.42		0.08		0.90		1.11		4.11		2.80		1.77		0.30		0.00		0.13		0	12	12	
Pb RATE (see Note 3)	0.0004		0		0.0004		0.0004		0.0004		0.0004		0.0004		0.0004		0.0004		0.0004		0		0.0004		0	0.0004	0.0004	
Pb EMISSIONS (TONS)	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0	0	0	

Note 1: Units for "FUEL BURNED" are "TONS" for coal and "KGAL" for oil.

Note 2: Units for "HEAT VALUE" are "Btu/lb" for coal and "Btu/gal" for oil.

Note 3: Units for this parameter are "lb. Emissions/TON of Coal" for coal and "lb. Emissions/KGAL of Oil" for oil.

Note 4: Units for this parameter are "lb. Emissions/MMBtu" for coal and "lb. Emission/KGAL of Oil" for oil.

Note 5: Emission rate information for SO2 is based on fuel sampling and analysis.

**BIG BEND STATION
TRANSLOADING OF FUEL 1997**

As per Specific Condition I.A.3 of the Conditions of Certification the total quantity of fuel loaded by the fuel transloading source at Big Bend Station was:

377,435 Tons

**BIG BEND STATION
UNITS 3 & 4**

As per Specific Condition #22 of permit #A029-179911(B) for Unit 3 and Specific Condition #1.B. of permit PSD-FL-040 and Condition I.A.14 of Certification PA79-12 for Unit 4 attached is a summary verifying that the 20% maximum petroleum coke content by weight has not been exceeded.

BIG BEND STATION PET COKE BURN PERCENTAGES
1997 Coal / Pet Coke Use

BB3

Month	Pet Coke	Pet Coke/Res*	Total Pet Coke*	Total Fuel	% Pet Coke
1	2487	0	2487	113900	2.2
2	1404	0	1404	79700	1.8
3	0	0	0	96900	0.0
4	548	817	913	118900	0.8
5	839	0	839	114000	0.7
6	0	588	262	103500	0.3
7	0	64	41	18600	0.2
8	977	1917	2209	76800	2.9
9	0	3067	1971	104400	1.9
10	3872	2180	5273	113100	4.7
11	0	0	0	105200	0.0
12	872	0	872	86300	1.0
Total			16271	1131300	1.4

BB4

Month	Pet Coke	Pet Coke/Res	Total Pet Coke	Total Fuel	% Pet Coke
1	11509	0	11509	115500	10.0
2	5445	0	5445	55100	9.9
3	8423	0	8423	102500	8.2
4	7459	14834	14078	113600	12.4
5	15258	1904	16108	125800	12.8
6	14738	3572	16332	127500	12.8
7	2788	12050	10532	130100	8.1
8	1563	1009	2211	111100	2.0
9		1105	710	79600	0.9
10	4852	2712	6595	130200	5.1
11	8384	0	8384	125900	6.7
12	5821	0	5821	130600	4.5
Total			106147	1347500	7.9

Date: 2/21/97 3:41:01 PM
From: Cindy Phillips TAL
Subject: TECO BIG BEND STATION - CO Compliance
To: Sterlin Woodard TPA

Guess what, Sterlin, I have another question....

Unit #4 has CO limits in their PSD permit of 0.029 lb/MMBtu and 124 lb/hr. How is compliance currently being demonstrated? I couldn't find any test data in ARMS. (In their Title V application, TEC has proposed EPA Method 10 once every five years.)

Our reading file



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 13, 1997

Mr. Stanley J. Martin
General Manager, Big Bend Station
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.
2. a) Where in the process is the coal sampled for analysis? b) Where in the process is the petroleum coke/coal blend sampled for analysis? c) What is the frequency of sampling and analysis? d) Please explain why the petcoke/coal blend fuel analyses parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

3. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

4. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) Is this "on-spec" used oil? b) Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions

5. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

6. In the application, TEC's requested Methods of Compliance for SO₂ emissions limitations from the Steam Generators are as follows:

Unit No. 1, 2, or 3: weekly composite fuel sampling and fuel analysis
or continuous emission monitoring;
deletion of current requirement for annual stack testing

Units No. 1, 2, and 3, total group: daily composite fuel sampling and analysis;
deletion of current requirement for annual stack testing

In order to determine if an Alternate Sampling Procedure review is required, please answer the following questions. a) Is the fuel to be sampled and analyzed for calorific value? b) Is fuel sampling only to be used when the continuous monitor is not functional? c) Why is TEC not requesting to determine compliance with the total group emission limits by means of continuous emission monitoring? d) Is the monitoring equipment and procedure consistent with the requirements of 40 CFR 60 Appendix A Method 6C? e) Is TEC proposing continuous compliance while using the continuous SO₂ monitor?

7. Though not listed as such in the application, Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, may be an applicable requirement for Units No. 1-4. This rule limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Please provide assurance as to how this limit will be met in each unit if it applies to the facility. If it does not apply, please explain why.

8. Please clarify the following stack information provided in the application: a) For the nonintegrated mode, where is the SO₂ emissions sampling port for Steam Generator Unit No. 3? b) Why does Stack #3 include a recirculation duct and why is this not shown on the DOCUMENT II.D.3.G., OVERALL BOILER PROCESS FLOW DIAGRAM, and the BOILER NO. 4 TEST LOCATION - FIGURE 1? c) Why does the BOILER NO. 3 TEST LOCATION - FIGURE 1 show two ESP outlets to the stack and no FGD outlet? d) Based on DOCUMENT II.D.2.C., COMBUSTION EMISSION SOURCES, and DOCUMENT II.D.2.A., BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET, Combustion Sources CS-003 and CS-

004 have separate and distinct emission points (stacks). How can this be true for the integrated mode? Please revise these documents with notations about the integrated mode. e) Please provide a diagram of the Unit No. 3 integrated mode particulate emissions stack (duct) sampling location. f) Is the particulate sampling location shown in BOILER NO. 4 TEST LOCATION - FIGURE 1 the sampling location for the Boiler No. 4 in the integrated mode as well as the non-integrated mode?

9. Deletion of current annual visible emissions testing using EPA or FDEP Reference Method 9 was requested for Steam Generator Units 3 and 4 in the application. Is TEC proposing continuous compliance while using the continuous opacity monitors? Is continuous compliance being proposed for Unit 3 while it is operating in the non-integrated mode?

10. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the fossil fuel steam generators which have not received a PSD or New Source Review permit must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1, 2, and 3: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

11. Recent information, provided in EPA's final interim report on HAP emissions from fossil fuel-fired electric utility steam generating units, indicates that a large amount of hydrogen fluoride (and, therefore, total fluorides) may be emitted from the Big Bend Station. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application, as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption?

12. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units? c) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? d) Is the petcoke received from only one source? What reasonable assurance can be given that the petcoke is analyzed to the extent to verify that no major amounts of individual HAPs will be emitted from the facility, other than those already listed in the application?

13. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). a) By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or

Mr. Stanley J. Martin

February 13, 1997

Page 4 of 11

has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption?

b) If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.} c) By not listing arsenic compounds, chromium compounds, or manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons each of arsenic compounds, chromium compounds, and manganese compounds per year? What is the basis for this assumption? d) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds, chromium compounds, or manganese compounds as it does lead. Why are arsenic, chromium, and manganese compounds not identified as pollutants for the facility and each of the steam generator units?

14. The following hazardous air pollutants are listed in the application as being emitted from:

Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;

Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;

Steam Generator Unit No. 4 - Pb, HCl, and HF;

Combustion Turbine No. 1 - HCl ;

Combustion Turbine No. 2 - HCl, HF, and Ni;

Combustion Turbine No. 3 - HCl, and Mn.

a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?

b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?

c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn, when Combustion Turbines No. 1 and No. 2 do not?

d) Why does Steam Generator No. 3 emit 1,000 pounds or more per year of Mn, when Steam Generators Nos. 1, 2 and 4 do not?

15. Please provide the following additional information about control devices/methods: a) If TEC is adding ammonia to the flue gas from Unit No. 4, ammonia injection should be listed as a control device/method and a detailed description of the process should be submitted. b) If Stack #3 includes a recirculation duct to return exhaust gas to the inlet of the FGD scrubber, Flue Gas Recirculation should be listed as a control device/method and a detailed description of the process should be submitted. c) Please explain why, and in what quantities, TEC is adding SO₃ to the flue gases from Units Nos. 1-3, and quantify the effect on emissions. d) Is the SO₃ purchased or is it created on-site?

16. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

17. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please correct these emissions numbers.

18. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

19. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please explain.

20. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

21. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

22. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

23. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073.

24. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. a) Are there any vents or stacks associated with the enclosures? b) Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? c) Is conveyor belt

CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

25. The modified Conditions of Certification limit the maximum annual transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. We believe this is an error. Please contact Mr. Buck Oven in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.

26. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. Please provide the required process rate information for each transloading source/emissions point by completing the appropriate application sections. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

27. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted by rule, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

28. How many blending bins are there? Please describe how the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?

29. In the application, Table A-1 "Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station," states that 40 CFR 60 Subpart Y "Standards of Performance for Coal Preparation Plants", only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.

30. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?

31. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to any of the coal processing equipment.

32. The following information is requested in order to determine if there are additional sources of particulate matter emissions from solid fuel handling/processing that were not included in the

application. a) In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate "Transloading" storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time? b) In the application, DOCUMENT II.D.3.D., "FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD", shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process? c) Application DOCUMENT II.D.3.F., "FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS", shows emission points (FH-050 and FH-051) where the crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

33. a) Application DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo? b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

34. Application DOCUMENT II.D.3.J., "LIMESTONE HANDLING PROCESS FLOW DIAGRAM", shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

35. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

36. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

37. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several segments with the appropriate application sections completed. When creating segments consider operating characteristics. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is? Here are some suggested segments with corresponding SCCs:

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105
Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

38. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

39. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates appear to be 0.58 lb/hr and 0.42 tpy. Please recalculate and verify your numbers.

Fly Ash Handling and Storage Sources

40. a) How is the fly ash, dry and wet, transferred to the silos? b) What is the maximum loading rate to Silo #2? c) Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers? Does Silo #2 handle any wet (pug mill) transfer fly ash? d) How will the future connection between Silo #1 and Silo #2 (as indicated on DOCUMENT II.D.3.K.) impact particulate emissions?

41. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT II.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from off-site actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one on-site fly ash silo to another?

Gypsum Handling and Storage Emission Sources

42. How is the actual sludge dewatering performed? Are there any fugitive particulate emissions associated with this process?

Slag and Bottom Ash Handling

43. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded? Are there any fugitive particulate emissions associated with this process?

Fuel Oil Storage and Handling

44. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates. (STR-001 and STR-002 contain No. 2 only per Table A-1.) Do the storage tank emit any VOCs or HAPs?

45. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

Abrasive Blast Media Storage

46. What type of abrasive blast media is used? Where does the blasting occur? Please provide information for this source so that it may be included in the Title V permit per Rule 210.300(3)(b).

Ship Repair Facility

47. Based on comments received from EPCHC, during an EPCHC inspection on June 6, 1994, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this information for an after-the-fact construction application and submit a compliance plan, or indicate why this source does not need to be included in the Title V permit.

List of Proposed Exempt Activities

48. Currently, in order for an emissions unit and/activity to be "exempt" in the Title V permit, the emissions unit and/or activity cannot exceed one or more of the emissions thresholds or have a unit-specific requirement (see Rule 62-213.430(6), F.A.C.). Also, the Department has issued guidance on emission units and/or activities that are considered "trivial" (see enclosed DARM-PER/V-15, revised March 15, 1996). These emissions units and/or activities no longer need to be included in Title V permit applications. "Trivial" emission units and /or activities will not be included in the Title V permit. Please update your attachment "List of Proposed Exempt Activities" and provide sufficient information to classify the emissions units and/or activities into two new categories - those that are "exempt" and those that are "unregulated".

To properly update the "List of Proposed Exempt Activities" you need to consider the requirements of Rule 62-213.430(6), F.A.C. If the answer to any of the following questions is yes, an emissions unit and/or activity cannot be "exempt".

- (1) Does any unit or activity have a unit-specific applicable requirement?
- (2) Does any unit or activity emit, or have the potential to emit, equal to or greater than:
 - 1,000 pounds/year of any hazardous air pollutant (HAP);
 - 2,500 pounds/year of total HAPs; and/or
 - 5 TPY of any other regulated air pollutant, i.e, volatile organic compound (VOC)?

49. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

50. Do the vehicle refueling operations dispense 20,000 gallons/month or more of gasoline? If so, Stage I vapor control applies per Rule 62-252.300(1), F.A.C.

Miscellaneous

51. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling and/or washing procedures that are currently being utilized for the Big Bend Station.

52. A "once-through cooling water system" is mentioned in the introduction to the application. Is this a cooling tower?

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, your response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because

Mr. Stanley J. Martin
February 13, 1997
Page 11 of 11

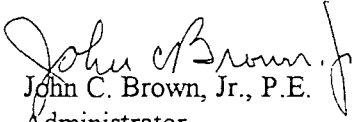
best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.

2. Your Title V application requested that a petcoke/coal blend be burned in Steam Generator Units No. 1 and No. 2. Approval to burn this fuel must be obtained through preconstruction review (i.e., applying for and receiving an air construction permit). Subsequently, the Title V permit application or permit revision application can be submitted.

3. Though requested in the application, non-hazardous boiler chemical cleaning waste will not be listed as a permitted fuel in the Title V permit.

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or Mr. Scott M. Sheplak, P.E., at (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

Sincerely,


John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/SMS/CLP

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD
Thomas W. Reese, Esq.

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 13, 1997

Mr. Stanley J. Martin
General Manager, Big Bend Station
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.
2. a) Where in the process is the coal sampled for analysis? b) Where in the process is the petroleum coke/coal blend sampled for analysis? c) What is the frequency of sampling and analysis? d) Please explain why the petcoke/coal blend fuel analyses parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.

Mr. Stanley J. Martin

February 13, 1997

Page 2 of 11

3. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

4. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) Is this "on-spec" used oil? b) Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions

5. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

6. In the application, TEC's requested Methods of Compliance for SO₂ emissions limitations from the Steam Generators are as follows:

Unit No. 1, 2, or 3: weekly composite fuel sampling and fuel analysis
 or continuous emission monitoring;
 deletion of current requirement for annual stack testing

Units No. 1, 2, and 3, total group: daily composite fuel sampling and analysis;
 deletion of current requirement for annual stack testing

In order to determine if an Alternate Sampling Procedure review is required, please answer the following questions. a) Is the fuel to be sampled and analyzed for calorific value? b) Is fuel sampling only to be used when the continuous monitor is not functional? c) Why is TEC not requesting to determine compliance with the total group emission limits by means of continuous emission monitoring? d) Is the monitoring equipment and procedure consistent with the requirements of 40 CFR 60 Appendix A Method 6C? e) Is TEC proposing **continuous compliance** while using the continuous SO₂ monitor?

7. Though not listed as such in the application, Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, may be an applicable requirement for Units No. 1-4. This rule limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Please provide assurance as to how this limit will be met in each unit if it applies to the facility. If it does not apply, please explain why.

8. Please clarify the following stack information provided in the application: a) For the nonintegrated mode, where is the SO₂ emissions sampling port for Steam Generator Unit No. 3? b) Why does Stack #3 include a recirculation duct and why is this not shown on the DOCUMENT II.D.3.G., OVERALL BOILER PROCESS FLOW DIAGRAM, and the BOILER NO. 4 TEST LOCATION - FIGURE 1? c) Why does the BOILER NO. 3 TEST LOCATION - FIGURE 1 show two ESP outlets to the stack and no FGD outlet? d) Based on DOCUMENT II.D.2.C., COMBUSTION EMISSION SOURCES, and DOCUMENT II.D.2.A., BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET, Combustion Sources CS-003 and CS-

Mr. Stanley J. Martin

February 13, 1997

Page 3 of 11

004 have separate and distinct emission points (stacks). How can this be true for the integrated mode? Please revise these documents with notations about the integrated mode. e) Please provide a diagram of the Unit No. 3 integrated mode particulate emissions stack (duct) sampling location. f) Is the particulate sampling location shown in BOILER NO. 4 TEST LOCATION - FIGURE 1 the sampling location for the Boiler No. 4 in the integrated mode as well as the non-integrated mode?

9. Deletion of current annual visible emissions testing using EPA or FDEP Reference Method 9 was requested for Steam Generator Units 3 and 4 in the application. Is TEC proposing **continuous compliance** while using the continuous opacity monitors? Is **continuous compliance** being proposed for Unit 3 while it is operating in the non-integrated mode?

10. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the fossil fuel steam generators which have not received a PSD or New Source Review permit must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1, 2, and 3: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

11. Recent information, provided in EPA's final interim report on HAP emissions from fossil fuel-fired electric utility steam generating units, indicates that a large amount of hydrogen fluoride (and, therefore, total fluorides) may be emitted from the Big Bend Station. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application, as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption?

12. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units? c) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? d) Is the petcoke received from only one source? What reasonable assurance can be given that the petcoke is analyzed to the extent to verify that no major amounts of individual HAPs will be emitted from the facility, other than those already listed in the application?

13. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). a) By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or

has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption?

b) If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.} c) By not listing arsenic compounds, chromium compounds, or manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons each of arsenic compounds, chromium compounds, and manganese compounds per year? What is the basis for this assumption? d) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds, chromium compounds, or manganese compounds as it does lead. Why are arsenic, chromium, and manganese compounds not identified as pollutants for the facility and each of the steam generator units?

14. The following hazardous air pollutants are listed in the application as being emitted from:

Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;

Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;

Steam Generator Unit No. 4 - Pb, HCl, and HF;

Combustion Turbine No. 1 - HCl ;

Combustion Turbine No. 2 - HCl, HF, and Ni;

Combustion Turbine No. 3 - HCl, and Mn.

a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?

b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?

c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn, when Combustion Turbines No. 1 and No. 2 do not?

d) Why does Steam Generator No. 3 emit 1,000 pounds or more per year of Mn, when Steam Generators Nos. 1, 2 and 4 do not?

15. Please provide the following additional information about control devices/methods: a) If TEC is adding ammonia to the flue gas from Unit No. 4, ammonia injection should be listed as a control device/method and a detailed description of the process should be submitted. b) If Stack #3 includes a recirculation duct to return exhaust gas to the inlet of the FGD scrubber, Flue Gas Recirculation should be listed as a control device/method and a detailed description of the process should be submitted. c) Please explain why, and in what quantities, TEC is adding SO₃ to the flue gases from Units Nos. 1-3, and quantify the effect on emissions. d) Is the SO₃ purchased or is it created on-site?

16. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

17. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please correct these emissions numbers.

Mr. Stanley J. Martin

February 13, 1997

Page 5 of 11

18. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

19. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please explain.

20. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

21. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

22. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

23. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073.

24. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. a) Are there any vents or stacks associated with the enclosures? b) Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? c) Is conveyor belt

CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

25. The modified Conditions of Certification limit the maximum **annual** transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. We believe this is an error. Please contact Mr. Buck Oven in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.

26. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. Please provide the required process rate information for each transloading source/emissions point by completing the appropriate application sections. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

27. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted by rule, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

28. How many blending bins are there? Please describe how the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?

29. In the application, Table A-1 "Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station," states that 40 CFR 60 Subpart Y "Standards of Performance for Coal Preparation Plants", only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.

30. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?

31. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to any of the coal processing equipment.

32. The following information is requested in order to determine if there are additional sources of particulate matter emissions from solid fuel handling/processing that were not included in the

Mr. Stanley J. Martin

February 13, 1997

Page 7 of 11

application. a) In the application, DOCUMENT I.I.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate "Transloading" storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time? b) In the application, DOCUMENT I.I.D.3.D., "FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD", shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process? c) Application DOCUMENT I.I.D.3.F., "FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS", shows emission points (FH-050 and FH-051) where the crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

33. a) Application DOCUMENT I.I.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo? b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

34. Application DOCUMENT I.I.D.3.J., "LIMESTONE HANDLING PROCESS FLOW DIAGRAM", shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

35. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

36. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

37. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several segments with the appropriate application sections completed. When creating segments consider operating characteristics. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is? Here are some suggested segments with corresponding SCCs:

Mr. Stanley J. Martin

February 13, 1997

Page 8 of 11

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105
Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

38. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

39. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates appear to be 0.58 lb/hr and 0.42 tpy. Please recalculate and verify your numbers.

Fly Ash Handling and Storage Sources

40. a) How is the fly ash, dry and wet, transferred to the silos? b) What is the maximum loading rate to Silo #2? c) Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers? Does Silo #2 handle any wet (pug mill) transfer fly ash? d) How will the future connection between Silo #1 and Silo #2 (as indicated on DOCUMENT I.I.D.3.K.) impact particulate emissions?

41. In the application, DOCUMENT I.I.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT I.I.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from off-site actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one on-site fly ash silo to another?

Gypsum Handling and Storage Emission Sources

42. How is the actual sludge dewatering performed? Are there any fugitive particulate emissions associated with this process?

Slag and Bottom Ash Handling

43. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded? Are there any fugitive particulate emissions associated with this process?

Fuel Oil Storage and Handling

44. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates. (STR-001 and STR-002 contain No. 2 only per Table A-1.) Do the storage tank emit any VOCs or HAPs?

45. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

Abrasive Blast Media Storage

46. What type of abrasive blast media is used? Where does the blasting occur? Please provide information for this source so that it may be included in the Title V permit per Rule 210.300(3)(b).

Ship Repair Facility

47. Based on comments received from EPCHC, during an EPCHC inspection on June 6, 1994, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this information for an after-the-fact construction application and submit a compliance plan, or indicate why this source does not need to be included in the Title V permit.

List of Proposed Exempt Activities

48. Currently, in order for an emissions unit and/activity to be "exempt" in the Title V permit, the emissions unit and/or activity cannot exceed one or more of the emissions thresholds or have a unit-specific requirement (see Rule 62-213.430(6), F.A.C.). Also, the Department has issued guidance on emission units and/or activities that are considered "trivial" (see enclosed DARM-PER/V-15, revised March 15, 1996). These emissions units and/or activities no longer need to be included in Title V permit applications. "Trivial" emission units and/or activities will not be included in the Title V permit. Please update your attachment "List of Proposed Exempt Activities" and provide sufficient information to classify the emissions units and/or activities into two new categories - those that are "exempt" and those that are "unregulated".

To properly update the "List of Proposed Exempt Activities" you need to consider the requirements of Rule 62-213.430(6), F.A.C. If the answer to any of the following questions is yes, an emissions unit and/or activity cannot be "exempt".

- (1) Does any unit or activity have a unit-specific applicable requirement?
- (2) Does any unit or activity emit, or have the potential to emit, equal to or greater than:
 - 1,000 pounds/year of any hazardous air pollutant (HAP);
 - 2,500 pounds/year of total HAPs; and/or
 - 5 TPY of any other regulated air pollutant, i.e, volatile organic compound (VOC)?

49. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

50. Do the vehicle refueling operations dispense 20,000 gallons/month or more of gasoline? If so, Stage I vapor control applies per Rule 62-252.300(1), F.A.C.

Miscellaneous

51. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling and/or washing procedures that are currently being utilized for the Big Bend Station.

52. A "once-through cooling water system" is mentioned in the introduction to the application. Is this a cooling tower?

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, you response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because

Mr. Stanley J. Martin

February 13, 1997

Page 11 of 11

best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.

2. Your Title V application requested that a petcoke/coal blend be burned in Steam Generator Units No. 1 and No. 2. Approval to burn this fuel must be obtained through preconstruction review (i.e., applying for and receiving an air construction permit). Subsequently, the Title V permit application or permit revision application can be submitted.

3. Though requested in the application, non-hazardous boiler chemical cleaning waste will not be listed as a permitted fuel in the Title V permit.

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or Mr. Scott M. Sheplak, P.E., at (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

Sincerely,

John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/SMS/CLP

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD
Thomas W. Reese, Esq.

~~-DRAFT4-~~

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 13, 1997

Mr. Stanley Martin
General Manager, Big Bend Station
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.

2. a) Where in the process is the coal sampled for analysis? b) Where in the process is the petroleum coke/coal blend sampled for analysis? c) What is the frequency of sampling and analysis? d) Please explain why the petcoke/coal blend fuel analyses parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.

Mr. Stanley Martin

January 1997

Page 2 of 11

3. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

4. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) Is this "on-spec" used oil? b) Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions

5. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

6. In the application, TEC's requested Methods of Compliance for SO₂ emissions limitations from the Steam Generators are as follows:

Unit No. 1, 2, or 3: weekly composite fuel sampling and fuel analysis
 or continuous emission monitoring;
 deletion of current requirement for annual stack testing

Units No. 1, 2, and 3, total group: daily composite fuel sampling and analysis;
 deletion of current requirement for annual stack testing

In order to determine if an Alternate Sampling Procedure review is required, please answer the following questions. a) Is the fuel to be sampled and analyzed for calorific value? b) Is fuel sampling only to be used when the continuous monitor is not functional? c) Why is TEC not requesting to determine compliance with the total group emission limits by means of continuous emission monitoring? d) Is the monitoring equipment and procedure consistent with the requirements of 40 CFR 60 Appendix A Method 6C? e) Is TEC proposing continuous compliance while using the continuous SO₂ monitor?

7. Though not listed as such in the application, Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, is an applicable requirement for Units No. 1-4. This rule limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Please provide assurance as to how this limit will be met in each unit. Is TEC requesting sulfur limits?

8. Please clarify the following stack information provided in the application: a) For the nonintegrated mode, where is the SO₂ emissions sampling port for Steam Generator Unit No. 3? b) Why does Stack #3 include a recirculation duct and why is this not shown on the DOCUMENT II.D.3.G., OVERALL BOILER PROCESS FLOW DIAGRAM, and the BOILER NO. 4 TEST LOCATION - FIGURE 1? c) Why does the BOILER NO. 3 TEST LOCATION - FIGURE 1 show two ESP outlets to the stack and no FGD outlet? d) Based on DOCUMENT II.D.2.C., COMBUSTION EMISSION SOURCES, and DOCUMENT II.D.2.A., BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET, Combustion Sources CS-003 and CS-

Z 392 940 829



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PS Form 3800, March 1993

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3. Article Addressed to:
Mr. Stanley J. Martin
General Manager, Big Bend Station
Tampa Electric Company
Post Office Box 111
Tampa, Florida 33601-0111

5. Signature (Addressee)

6. Signature (Agent)

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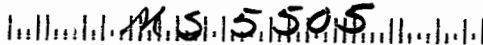
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DIVISION OF AIR RESOURCES MANAGEMENT
BUREAU OF AIR REGULATION - TITLE V
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BA





Department of Environmental Protection

CM Cide
(Cindy)

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 13, 1997

Mr. Stanley J. Martin
General Manager, Big Bend Station
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

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However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.
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Mr. Stanley J. Martin

February 13, 1997

Page 2 of 11

3. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

4. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) Is this "on-spec" used oil? b) Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions

5. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

6. In the application, TEC's requested Methods of Compliance for SO₂ emissions limitations from the Steam Generators are as follows:

Unit No. 1, 2, or 3: weekly composite fuel sampling and fuel analysis
or continuous emission monitoring;
deletion of current requirement for annual stack testing

Units No. 1, 2, and 3, total group: daily composite fuel sampling and analysis;
deletion of current requirement for annual stack testing

In order to determine if an Alternate Sampling Procedure review is required, please answer the following questions. a) Is the fuel to be sampled and analyzed for calorific value? b) Is fuel sampling only to be used when the continuous monitor is not functional? c) Why is TEC not requesting to determine compliance with the total group emission limits by means of continuous emission monitoring? d) Is the monitoring equipment and procedure consistent with the requirements of 40 CFR 60 Appendix A Method 6C? e) Is TEC proposing **continuous compliance** while using the continuous SO₂ monitor?

7. Though not listed as such in the application, Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, may be an applicable requirement for Units No. 1-4. This rule limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Please provide assurance as to how this limit will be met in each unit if it applies to the facility. If it does not apply, please explain why.

8. Please clarify the following stack information provided in the application: a) For the nonintegrated mode, where is the SO₂ emissions sampling port for Steam Generator Unit No. 3? b) Why does Stack #3 include a recirculation duct and why is this not shown on the DOCUMENT II.D.3.G., OVERALL BOILER PROCESS FLOW DIAGRAM, and the BOILER NO. 4 TEST LOCATION - FIGURE 1? c) Why does the BOILER NO. 3 TEST LOCATION - FIGURE 1 show two ESP outlets to the stack and no FGD outlet? d) Based on DOCUMENT II.D.2.C., COMBUSTION EMISSION SOURCES, and DOCUMENT II.D.2.A., BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET, Combustion Sources CS-003 and CS-

004 have separate and distinct emission points (stacks). How can this be true for the integrated mode? Please revise these documents with notations about the integrated mode. e) Please provide a diagram of the Unit No. 3 integrated mode particulate emissions stack (duct) sampling location. f) Is the particulate sampling location shown in BOILER NO. 4 TEST LOCATION - FIGURE 1 the sampling location for the Boiler No. 4 in the integrated mode as well as the non-integrated mode?

9. Deletion of current annual visible emissions testing using EPA or FDEP Reference Method 9 was requested for Steam Generator Units 3 and 4 in the application. Is TEC proposing **continuous compliance** while using the continuous opacity monitors? Is **continuous compliance** being proposed for Unit 3 while it is operating in the non-integrated mode?

10. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the fossil fuel steam generators which have not received a PSD or New Source Review permit must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1, 2, and 3: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

11. Recent information, provided in EPA's final interim report on HAP emissions from fossil fuel-fired electric utility steam generating units, indicates that a large amount of hydrogen fluoride (and, therefore, total fluorides) may be emitted from the Big Bend Station. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application, as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption?

12. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units? c) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? d) Is the petcoke received from only one source? What reasonable assurance can be given that the petcoke is analyzed to the extent to verify that no major amounts of individual HAPs will be emitted from the facility, other than those already listed in the application?

13. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). a) By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or

has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption? b) If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.} c) By not listing arsenic compounds, chromium compounds, or manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons each of arsenic compounds, chromium compounds, and manganese compounds per year? What is the basis for this assumption? d) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds, chromium compounds, or manganese compounds as it does lead. Why are arsenic, chromium, and manganese compounds not identified as pollutants for the facility and each of the steam generator units?

14. The following hazardous air pollutants are listed in the application as being emitted from:

Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;

Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;

Steam Generator Unit No. 4 - Pb, HCl, and HF;

Combustion Turbine No. 1 - HCl ;

Combustion Turbine No. 2 - HCl, HF, and Ni;

Combustion Turbine No. 3 - HCl, and Mn.

- a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?
- b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?
- c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn, when Combustion Turbines No. 1 and No. 2 do not?
- d) Why does Steam Generator No. 3 emit 1,000 pounds or more per year of Mn, when Steam Generators Nos. 1, 2 and 4 do not?

15. Please provide the following additional information about control devices/methods: a) If TEC is adding ammonia to the flue gas from Unit No. 4, ammonia injection should be listed as a control device/method and a detailed description of the process should be submitted. b) If Stack #3 includes a recirculation duct to return exhaust gas to the inlet of the FGD scrubber, Flue Gas Recirculation should be listed as a control device/method and a detailed description of the process should be submitted. c) Please explain why, and in what quantities, TEC is adding SO₃ to the flue gases from Units Nos. 1-3, and quantify the effect on emissions. d) Is the SO₃ purchased or is it created on-site?

16. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

17. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please correct these emissions numbers.

Mr. Stanley J. Martin

February 13, 1997

Page 5 of 11

18. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

19. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please explain.

20. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

21. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

22. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

23. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073.

24. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. a) Are there any vents or stacks associated with the enclosures? b) Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? c) Is conveyor belt

CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

25. The modified Conditions of Certification limit the maximum **annual** transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. We believe this is an error. Please contact Mr. Buck Oven in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.

26. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. Please provide the required process rate information for each transloading source/emissions point by completing the appropriate application sections. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

27. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted by rule, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

28. How many blending bins are there? Please describe how the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?

29. In the application, Table A-1 "Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station," states that 40 CFR 60 Subpart Y "Standards of Performance for Coal Preparation Plants", only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.

30. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?

31. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to any of the coal processing equipment.

32. The following information is requested in order to determine if there are additional sources of particulate matter emissions from solid fuel handling/processing that were not included in the

application. a) In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate "Transloading" storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time? b) In the application, DOCUMENT II.D.3.D., "FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD", shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process? c) Application DOCUMENT II.D.3.F., "FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS", shows emission points (FH-050 and FH-051) where the crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

33. a) Application DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo? b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

34. Application DOCUMENT II.D.3.J., "LIMESTONE HANDLING PROCESS FLOW DIAGRAM", shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

35. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

36. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

37. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several segments with the appropriate application sections completed. When creating segments consider operating characteristics. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is? Here are some suggested segments with corresponding SCCs:

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105
Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

38. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

39. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates appear to be 0.58 lb/hr and 0.42 tpy. Please recalculate and verify your numbers.

Fly Ash Handling and Storage Sources

40. a) How is the fly ash, dry and wet, transferred to the silos? b) What is the maximum loading rate to Silo #2? c) Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers? Does Silo #2 handle any wet (pug mill) transfer fly ash? d) How will the future connection between Silo #1 and Silo #2 (as indicated on DOCUMENT II.D.3.K.) impact particulate emissions?

41. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT II.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from off-site actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one on-site fly ash silo to another?

Gypsum Handling and Storage Emission Sources

42. How is the actual sludge dewatering performed? Are there any fugitive particulate emissions associated with this process?

Slag and Bottom Ash Handling

43. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded? Are there any fugitive particulate emissions associated with this process?

Fuel Oil Storage and Handling

44. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates. (STR-001 and STR-002 contain No. 2 only per Table A-1.) Do the storage tank emit any VOCs or HAPs?

45. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

Abrasive Blast Media Storage

46. What type of abrasive blast media is used? Where does the blasting occur? Please provide information for this source so that it may be included in the Title V permit per Rule 210.300(3)(b).

Ship Repair Facility

47. Based on comments received from EPCHC, during an EPCHC inspection on June 6, 1994, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this information for an after-the-fact construction application and submit a compliance plan, or indicate why this source does not need to be included in the Title V permit.

List of Proposed Exempt Activities

48. Currently, in order for an emissions unit and/activity to be "exempt" in the Title V permit, the emissions unit and/or activity cannot exceed one or more of the emissions thresholds or have a unit-specific requirement (see Rule 62-213.430(6), F.A.C.). Also, the Department has issued guidance on emission units and/or activities that are considered "trivial" (see enclosed DARM-PER/V-15, revised March 15, 1996). These emissions units and/or activities no longer need to be included in Title V permit applications. "Trivial" emission units and/or activities will not be included in the Title V permit. Please update your attachment "List of Proposed Exempt Activities" and provide sufficient information to classify the emissions units and/or activities into two new categories - those that are "exempt" and those that are "unregulated".

To properly update the "List of Proposed Exempt Activities" you need to consider the requirements of Rule 62-213.430(6), F.A.C. If the answer to any of the following questions is yes, an emissions unit and/or activity cannot be "exempt".

- (1) Does any unit or activity have a unit-specific applicable requirement?
- (2) Does any unit or activity emit, or have the potential to emit, equal to or greater than:
 - 1,000 pounds/year of any hazardous air pollutant (HAP);
 - 2,500 pounds/year of total HAPs; and/or
 - 5 TPY of any other regulated air pollutant, i.e, volatile organic compound (VOC)?

49. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

50. Do the vehicle refueling operations dispense 20,000 gallons/month or more of gasoline? If so, Stage I vapor control applies per Rule 62-252.300(1), F.A.C.

Miscellaneous

51. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling and/or washing procedures that are currently being utilized for the Big Bend Station.

52. A "once-through cooling water system" is mentioned in the introduction to the application. Is this a cooling tower?

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, you response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because

Mr. Stanley J. Martin
February 13, 1997
Page 11 of 11

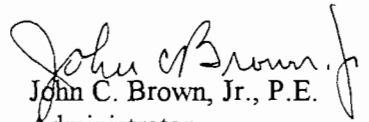
best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.

2. Your Title V application requested that a petcoke/coal blend be burned in Steam Generator Units No. 1 and No. 2. Approval to burn this fuel must be obtained through preconstruction review (i.e., applying for and receiving an air construction permit). Subsequently, the Title V permit application or permit revision application can be submitted.

3. Though requested in the application, non-hazardous boiler chemical cleaning waste will not be listed as a permitted fuel in the Title V permit.

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or Mr. Scott M. Sheplak, P.E., at (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

Sincerely,


John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/SMS/CLP

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD
Thomas W. Reese, Esq.

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: () - Fax: () -
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i> _____ Signature Date

* Attach letter of authorization if not currently on file.

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature

Date

(seal)

* Attach any exception to certification statement.

Memorandum

Florida Department of
Environmental Protection

DARM-PER/V-15
REVISED

TO: District Air Program Administrators
County Air Program Administrators
Bureau of Air Regulation Engineers

FROM: Howard L. Rhodes, Director *HLR*
Division of Air Resources Management

DATE: March 15, 1996

SUBJECT: Revision to Trivial List of Activities at a
Title V Facility

This guidance replaces the February 12, 1996 Guidance, DARM-PER/V-15. The only change is the rule siting in text of document.

Attachment A of a July 3, 1995 Environmental Protection Agency (EPA) memorandum, "Initial Operating Permit Application Compliance Certification Policy," commonly called the White Paper, attached, comprises a listing of trivial activities.

With one exception, Title V permits will not require that these activities be listed in the Title V permit applications or the Title V permits. These activities are treated as if they emit no air pollutants.

The EPA listing conditionally includes painting under the category of plant maintenance and upkeep activities (page 1) as a trivial activity. If painting activities at a Title V source in Florida result in emissions that are below the thresholds for exemption in Rule 62-213.430(6)(b), F.A.C., they may be included in the application as exemptible activities. Otherwise, they should be listed, but not quantified, as unregulated activities, provided the painting activities are not subject to an applicable requirement. If the painting activities result in emissions that trigger applicable requirements, they must be reported and quantified.

HLR/jb/k

Attachment

knows or has reason to believe would be emitted in an amount equal to or greater than:

a. 5.0 tons per year for carbon monoxide, nitrogen oxides, particulate matter, sulfur dioxide, and volatile organic compounds; or

b. 500 pounds per year for lead and lead compounds expressed as lead.

4. Each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount as set forth in Rule 62-213.(3)(c)1., F.A.C., shall identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than:

a. 1,000 pounds per year for each hazardous air pollutant.

b. 2,500 pounds per year for total hazardous air pollutants.

5. Title V sources which are also subject to the Federal Acid Rain Program shall report all emissions of sulfur dioxide and nitrogen oxides from any acid rain unit in accordance with this subsection or the reporting requirements of the Federal Acid Rain Program, whichever are more stringent.

(d) Process and operating information;

(e) Control equipment information;

(f) Calculations;

(g) Identification of all applicable requirements and test methods;

(h) Limitations on source operation affecting emissions;

(i) Proposed alternate methods of operation;

(j) Compliance statement;

(k) Compliance schedule and methodology, if applicable;

(l) Reporting and recordkeeping requirements;

(m) A list of emissions units or activities for which exemption is requested because of size or production rate and any information needed to demonstrate

that the units or activities qualify for exemption under the provisions of Rule 62-213.430(6), F.A.C.

(4) Certification by Responsible Official. In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to this chapter shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Specific Authority: 403.061, 403.087, F.S.
Law Implemented: 403.061, 403.0872, F.S.
History: New 11-28-93; Amended 4-17-94; Formerly 17-213.420; Amended 11-23-94, 4-2-95, 10-11-95, 3-13-96, 3-20-96.

62-213.430 Permit Issuance, Renewal, and Revision.

(1) Action on Application. Except for those applications submitted pursuant to Rule 62-213.420(1)(a)1., F.A.C., the Department shall issue a draft permit or a determination that the requested permit be denied within 90 days after receipt of the latest of: the application; the last item of information requested pursuant to Rule 62-213.420(1)(b), F.A.C.; or, a written request to process the application without the requested information. The Department shall issue a permit, permit revision or renewal only after all of the following conditions have been met:

(a) The applicant has submitted a complete application, properly certified by a responsible official as required by Rule 62-213.420(4), F.A.C., and either all corrected and supplemental information requested or a written request to process the application without such information pursuant to Rule 62-213.420(1)(b)3. and 4., F.A.C.;

(b) The Department and the applicant have complied with the requirements for notice and public participation described in Rules 62-103.150 and 62-210.350, F.A.C.;

(c) The Department has complied with the requirements for notifying and responding to affected states and approved local air programs pursuant to Rule 62-213.450(2) and (3), F.A.C.;

(d) The Department has provided EPA with a copy of the draft permit, proposed permit and any notices required under Rule 62-213.450(1) and (2), F.A.C., and has not received written EPA objection to issuance of the permit within the time period specified in Rule 62-213.450(4). If the Department receives timely EPA objection, the Department shall not take final action until the Department receives written notice that the objection is resolved or withdrawn;

(e) The Department has provided a statement to EPA setting forth the basis for the draft permit conditions, including references to the applicable statutory or regulatory provisions.

(2) Permit Denial. If the Department proposes to deny the permit application, the Department shall provide the applicant an explanation of the denial in accordance with Rule 62-4.070(6), F.A.C.

(3) Permit Renewal and Expiration. Permits being renewed are subject to the same requirements that apply to permit issuance at the time of application for renewal. Permit renewal applications shall contain that information identified in Rules 62-210.900(1) and 62-213.420(3), F.A.C. Unless a Title V source submits a timely application for permit renewal in accordance with the requirements of Rule 62-4.090(1), F.A.C., the existing permit shall expire and the source's right to operate shall terminate.

(4) Permit Revision Procedures. Permit revisions shall meet all requirements of this chapter, including those for content of applications, public participation, review by approved local air programs and affected States, and review by EPA, as they apply to permit

issuance and permit renewal, except that permit revisions for those activities implemented pursuant to Rule 62-213.412, F.A.C., need not meet the requirements of Rule 62-213.430(1)(b), F.A.C. The Department shall require permit revision in accordance with the provisions of Rule 62-4.080, F.A.C., and 40 CFR 70.7(f), whenever any source becomes subject to any condition listed at 40 CFR 70.7(f)(1), hereby adopted and incorporated by reference.

(5) EPA Recommended Actions. Within 90 days after receipt of notification from EPA that cause exists to modify, suspend, or revoke a permit, the Department shall investigate and determine whether cause exists pursuant to 40 CFR 70.7(f)(1), hereby adopted and incorporated by reference, and shall forward the determination to EPA. If cause exists, the Department shall proceed according to the requirements of Rule 62-4.080 or 62-4.100, F.A.C., and 40 CFR 70.7(f) to modify, suspend, or revoke the permit.

(6) Exemption of Emissions Units or Pollutant-Emitting Activities.

(a) All requests for exemption of emissions units or activities made pursuant to Rule 62-213.420(3)(m), F.A.C., shall be processed in conjunction with the permit, permit renewal or permit revision application submitted pursuant to this chapter. Exemptions shall be approved by the Department consistent with the provisions of Rule 62-4.040(1)(b), F.A.C. Emissions units or activities which are added to a Title V source after issuance of a permit under this chapter shall be incorporated into the permit at its next renewal, provided such emissions units or activities have been exempted from the requirement to obtain an air construction permit and also qualify for exemption from permitting pursuant to this rule.

(b) No exemption shall be granted to any emissions unit or activity if:

1. Such unit or activity would be subject to any unit-specific applicable requirement;

2. Such unit or activity, in combination with other units and activities proposed for exemption, would cause the facility to exceed any major source threshold(s) as defined in Rule 62-213.420(3)(c)1., F.A.C., unless it is acknowledged in the permit application that such units or activities would cause the facility to exceed such threshold(s); or

3. Such unit or activity would emit or have the potential to emit:

a. 500 pounds per year or more of lead and lead compounds expressed as lead;

b. 1,000 pounds per year or more of any hazardous air pollutant;

c. 2,500 pounds per year or more of total hazardous air pollutants; or

d. 5.0 tons per year or more of any other regulated pollutant.

Specific Authority: 403.061, 403.087, F.S.

Law Implemented: 403.031, 403.061, 403.087, 403.0872, F.S.

History: New 11-28-93, Formerly 17-213.430; Amended 11-23-94, 3-13-96, 3-20-96.

62-213.440 Permit Content.

(1) Standard Permit Requirements. Each permit issued under this chapter shall incorporate all applicable requirements for the Title V source and for each method of operation proposed by the applicant and approved by the Department. Each such permit shall include all emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements, with citation to the Department's rule authority for each term or condition, and identification of any difference in form from the applicable requirement upon which the term or condition is based. Emissions units or pollutant-emitting activities within a Title V source exempted by Rule 62-210.300(3), F.A.C., or by specific exemption

granted by the Department consistent with Rule 62-4.040(1)(b), F.A.C., shall be identified.

(a) Permit Duration. Permits for sources subject to the Federal Acid Rain Program shall be issued for terms of five years. Operation permits for Title V sources may not be extended as provided in Rule 62-4.080(3), F.A.C., if such extension will result in a permit term greater than five years.

(b) Monitoring and Related Recordkeeping and Reporting Requirements.

1. Each permit shall specify the following requirements with respect to monitoring:

a. Emissions monitoring and analysis procedures or test methods specified by applicable requirements;

b. Where the applicable requirement does not specify a method for periodic testing or instrumental or noninstrumental monitoring, periodic monitoring sufficient to yield reliable data and demonstrate compliance with the permit. Such monitoring requirements shall assure use of recordkeeping terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement; and

c. Requirements concerning the use, maintenance, and installation of monitoring equipment or methods.

2. The permit shall incorporate all applicable recordkeeping requirements including:

a. Records of monitoring information that specify the date, place, and time of sampling or measurement and the operating conditions at the time of sampling or measurement, the date(s) analyses were performed, the company or entity that performed the analyses, the analytical techniques or methods used, and the results of such analyses;

b. Retention of records of all monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original

ATTACHMENT A

LIST OF ACTIVITIES THAT MAY BE TREATED AS "TRIVIAL"

The following types of activities and emissions units may be presumptively omitted from part 70 permit applications. Certain of these listed activities include qualifying statements intended to exclude many similar activities.

Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.

Air-conditioning units used for human comfort that do not have applicable requirements under title VI of the Act.

Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/industrial or commercial process.

Non-commercial food preparation.

Consumer use of office equipment and products, not including printers or businesses primarily involved in photographic reproduction.

Janitorial services and consumer use of janitorial products.

Internal combustion engines used for landscaping purposes.

Laundry activities, except for dry-cleaning and steam boilers.

Bathroom/toilet vent emissions.

Emergency (backup) electrical generators at residential locations.

Tobacco smoking rooms and areas.

Blacksmith forges.

Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification.

¹Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise required.

Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.

Portable electrical generators that can be moved by hand from one location to another².

Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.

Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that do not result in emission of HAP metals.³

Air compressors and pneumatically operated equipment, including hand tools.

Batteries and battery charging stations, except at battery manufacturing plants.

Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP.⁴

Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.

²"Moved by hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.

³Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are more appropriate for treatment as insignificant activities based on size or production level thresholds. Brazing, soldering, welding and cutting torches directly related to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this appendix.

⁴Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.

Equipment used to mix and package, soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.

Drop hammers or hydraulic presses for forging or metalworking.

Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.

Vents from continuous emissions monitors and other analyzers.

Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.

Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.

Equipment used for surface coating, painting, dipping or spraying operations, except those that will emit VOC or HAP.

CO₂ lasers, used only on metals and other materials which do not emit HAP in the process.

Consumer use of paper trimmers/binders.

Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.

Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants.

Laser trimmers using dust collection to prevent fugitive emissions.

Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents.⁵

Routine calibration and maintenance of laboratory equipment or other analytical instruments.

⁵Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.

Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.

Hydraulic and hydrostatic testing equipment.

Environmental chambers not using hazardous air pollutant (HAP) gasses.

Shock chambers.

Humidity chambers.

Solar simulators.

Fugitive emission related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.

Process water filtration systems and demineralizes.

Demineralized water tanks and demineralizer vents.

Boiler water treatment operations, not including cooling towers.

Oxygen scavenging (de-aeration) of water.

Ozone generators.

Fire suppression systems.

Emergency road flares.

Steam vents and safety relief valves.

Steam leaks.

Steam cleaning operations.

Steam sterilizers.

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 13, 1997

Mr. Stanley J. Martin
General Manager, Big Bend Station
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.

2. a) Where in the process is the coal sampled for analysis? b) Where in the process is the petroleum coke/coal blend sampled for analysis? c) What is the frequency of sampling and analysis? d) Please explain why the petcoke/coal blend fuel analyses parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.

Mr. Stanley J. Martin

February 13, 1997

Page 2 of 11

3. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

4. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) Is this "on-spec" used oil? b) Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions

5. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

6. In the application, TEC's requested Methods of Compliance for SO₂ emissions limitations from the Steam Generators are as follows:

Unit No. 1, 2, or 3:

weekly composite fuel sampling and fuel analysis

or continuous emission monitoring;

deletion of current requirement for annual stack testing

Units No. 1, 2, and 3, total group: daily composite fuel sampling and analysis;

deletion of current requirement for annual stack testing

In order to determine if an Alternate Sampling Procedure review is required, please answer the following questions. a) Is the fuel to be sampled and analyzed for calorific value? b) Is fuel sampling only to be used when the continuous monitor is not functional? c) Why is TEC not requesting to determine compliance with the total group emission limits by means of continuous emission monitoring? d) Is the monitoring equipment and procedure consistent with the requirements of 40 CFR 60 Appendix A Method 6C? e) Is TEC proposing **continuous compliance** while using the continuous SO₂ monitor?

7. Though not listed as such in the application, Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, may be an applicable requirement for Units No. 1-4. This rule limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Please provide assurance as to how this limit will be met in each unit if it applies to the facility. If it does not apply, please explain why.

8. Please clarify the following stack information provided in the application: a) For the nonintegrated mode, where is the SO₂ emissions sampling port for Steam Generator Unit No. 3? b) Why does Stack #3 include a recirculation duct and why is this not shown on the DOCUMENT II.D.3.G., OVERALL BOILER PROCESS FLOW DIAGRAM, and the BOILER NO. 4 TEST LOCATION - FIGURE 1? c) Why does the BOILER NO. 3 TEST LOCATION - FIGURE 1 show two ESP outlets to the stack and no FGD outlet? d) Based on DOCUMENT II.D.2.C., COMBUSTION EMISSION SOURCES, and DOCUMENT II.D.2.A., BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET, Combustion Sources CS-003 and CS-

004 have separate and distinct emission points (stacks). How can this be true for the integrated mode? Please revise these documents with notations about the integrated mode. e) Please provide a diagram of the Unit No. 3 integrated mode particulate emissions stack (duct) sampling location. f) Is the particulate sampling location shown in BOILER NO. 4 TEST LOCATION - FIGURE 1 the sampling location for the Boiler No. 4 in the integrated mode as well as the non-integrated mode?

9. Deletion of current annual visible emissions testing using EPA or FDEP Reference Method 9 was requested for Steam Generator Units 3 and 4 in the application. Is TEC proposing **continuous compliance** while using the continuous opacity monitors? Is **continuous compliance** being proposed for Unit 3 while it is operating in the non-integrated mode?

10. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the fossil fuel steam generators which have not received a PSD or New Source Review permit must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1, 2, and 3: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

11. Recent information, provided in EPA's final interim report on HAP emissions from fossil fuel-fired electric utility steam generating units, indicates that a large amount of hydrogen fluoride (and, therefore, total fluorides) may be emitted from the Big Bend Station. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application, as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption?

12. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units? c) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? d) Is the petcoke received from only one source? What reasonable assurance can be given that the petcoke is analyzed to the extent to verify that no major amounts of individual HAPs will be emitted from the facility, other than those already listed in the application?

13. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). a) By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or

has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption? b) If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.} c) By not listing arsenic compounds, chromium compounds, or manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons each of arsenic compounds, chromium compounds, and manganese compounds per year? What is the basis for this assumption? d) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds, chromium compounds, or manganese compounds as it does lead. Why are arsenic, chromium, and manganese compounds not identified as pollutants for the facility and each of the steam generator units?

14. The following hazardous air pollutants are listed in the application as being emitted from:

Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;

Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;

Steam Generator Unit No. 4 - Pb, HCl, and HF;

Combustion Turbine No. 1 - HCl ;

Combustion Turbine No. 2 - HCl, HF, and Ni;

Combustion Turbine No. 3 - HCl, and Mn.

a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?

b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?

c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn, when Combustion Turbines No. 1 and No. 2 do not?

d) Why does Steam Generator No. 3 emit 1,000 pounds or more per year of Mn, when Steam Generators Nos. 1, 2 and 4 do not?

15. Please provide the following additional information about control devices/methods: a) If TEC is adding ammonia to the flue gas from Unit No. 4, ammonia injection should be listed as a control device/method and a detailed description of the process should be submitted. b) If Stack #3 includes a recirculation duct to return exhaust gas to the inlet of the FGD scrubber, Flue Gas Recirculation should be listed as a control device/method and a detailed description of the process should be submitted. c) Please explain why, and in what quantities, TEC is adding SO₃ to the flue gases from Units Nos. 1-3, and quantify the effect on emissions. d) Is the SO₃ purchased or is it created on-site?

16. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

17. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please correct these emissions numbers.

Mr. Stanley J. Martin

February 13, 1997

Page 5 of 11

18. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

19. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please explain.

20. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

21. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

22. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

23. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073.

24. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. a) Are there any vents or stacks associated with the enclosures? b) Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? c) Is conveyor belt

CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

25. The modified Conditions of Certification limit the maximum **annual** transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. We believe this is an error. Please contact Mr. Buck Oven in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.

26. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. Please provide the required process rate information for each transloading source/emissions point by completing the appropriate application sections. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

27. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted by rule, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

28. How many blending bins are there? Please describe how the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?

29. In the application, Table A-1 "Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station," states that 40 CFR 60 Subpart Y "Standards of Performance for Coal Preparation Plants", only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.

30. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?

31. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to any of the coal processing equipment.

32. The following information is requested in order to determine if there are additional sources of particulate matter emissions from solid fuel handling/processing that were not included in the

application. a) In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate "Transloading" storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time? b) In the application, DOCUMENT II.D.3.D., "FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD", shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process? c) Application DOCUMENT II.D.3.F., "FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS", shows emission points (FH-050 and FH-051) where the crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

33. a) Application DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo? b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

34. Application DOCUMENT II.D.3.J., "LIMESTONE HANDLING PROCESS FLOW DIAGRAM", shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

35. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

36. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

37. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several segments with the appropriate application sections completed. When creating segments consider operating characteristics. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is? Here are some suggested segments with corresponding SCCs:

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105
Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

38. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

39. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates appear to be 0.58 lb/hr and 0.42 tpy. Please recalculate and verify your numbers.

Fly Ash Handling and Storage Sources

40. a) How is the fly ash, dry and wet, transferred to the silos? b) What is the maximum loading rate to Silo #2? c) Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers? Does Silo #2 handle any wet (pug mill) transfer fly ash? d) How will the future connection between Silo #1 and Silo #2 (as indicated on DOCUMENT II.D.3.K.) impact particulate emissions?

41. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT II.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from off-site actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one on-site fly ash silo to another?

Gypsum Handling and Storage Emission Sources

42. How is the actual sludge dewatering performed? Are there any fugitive particulate emissions associated with this process?

Slag and Bottom Ash Handling

43. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded? Are there any fugitive particulate emissions associated with this process?

Fuel Oil Storage and Handling

44. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates. (STR-001 and STR-002 contain No. 2 only per Table A-1.) Do the storage tank emit any VOCs or HAPs?

45. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

Abrasive Blast Media Storage

46. What type of abrasive blast media is used? Where does the blasting occur? Please provide information for this source so that it may be included in the Title V permit per Rule 210.300(3)(b).

Ship Repair Facility

47. Based on comments received from EPCHC, during an EPCHC inspection on June 6, 1994, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this information for an after-the-fact construction application and submit a compliance plan, or indicate why this source does not need to be included in the Title V permit.

List of Proposed Exempt Activities

48. Currently, in order for an emissions unit and/activity to be "exempt" in the Title V permit, the emissions unit and/or activity cannot exceed one or more of the emissions thresholds or have a unit-specific requirement (see Rule 62-213.430(6), F.A.C.). Also, the Department has issued guidance on emission units and/or activities that are considered "trivial" (see enclosed DARM-PER/V-15, revised March 15, 1996). These emissions units and/or activities no longer need to be included in Title V permit applications. "Trivial" emission units and /or activities will not be included in the Title V permit. Please update your attachment "List of Proposed Exempt Activities" and provide sufficient information to classify the emissions units and/or activities into two new categories - those that are "exempt" and those that are "unregulated".

To properly update the "List of Proposed Exempt Activities" you need to consider the requirements of Rule 62-213.430(6), F.A.C. If the answer to any of the following questions is yes, an emissions unit and/or activity cannot be "exempt".

- (1) Does any unit or activity have a unit-specific applicable requirement?
- (2) Does any unit or activity emit, or have the potential to emit, equal to or greater than:
 - 1,000 pounds/year of any hazardous air pollutant (HAP);
 - 2,500 pounds/year of total HAPs; and/or
 - 5 TPY of any other regulated air pollutant, i.e, volatile organic compound (VOC)?

49. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

50. Do the vehicle refueling operations dispense 20,000 gallons/month or more of gasoline? If so, Stage I vapor control applies per Rule 62-252.300(1), F.A.C.

Miscellaneous

51. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling and/or washing procedures that are currently being utilized for the Big Bend Station.

52. A "once-through cooling water system" is mentioned in the introduction to the application. Is this a cooling tower?

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, your response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because

Mr. Stanley J. Martin
February 13, 1997
Page 11 of 11

best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.

2. Your Title V application requested that a petcoke/coal blend be burned in Steam Generator Units No. 1 and No. 2. Approval to burn this fuel must be obtained through preconstruction review (i.e., applying for and receiving an air construction permit). Subsequently, the Title V permit application or permit revision application can be submitted.

3. Though requested in the application, non-hazardous boiler chemical cleaning waste will not be listed as a permitted fuel in the Title V permit.

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or Mr. Scott M. Sheplak, P.E., at (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

Sincerely,

John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/SMS/CLP

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD
Thomas W. Reese, Esq.

-DRAFT3-

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 12, 1997

Mr. Stanley Martin
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.

2. a) Where in the process is the coal sampled for analysis? b) Where in the process is the petroleum coke/coal blend sampled for analysis? c) What is the frequency of sampling and analysis? d) Please explain why the petcoke/coal blend fuel analyses parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.

Mr. Stanley Martin

January 1997

Page 2

3. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

4. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) Is this "on-spec" used oil? b) Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions

5. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

6. In the application, TEC's requested Methods of Compliance for SO₂ emissions limitations from the Steam Generators are as follows:

Unit No. 1, 2, or 3:

weekly composite fuel sampling and fuel analysis

or continuous emission monitoring;

deletion of current requirement for annual stack testing

Units No. 1, 2, and 3, total group: daily composite fuel sampling and analysis;

deletion of current requirement for annual stack testing

In order to determine if an Alternate Sampling Procedure review is required, please answer the following questions. a) Is the fuel to be sampled and analyzed for calorific value? b) Is fuel sampling only to be used when the continuous monitor is not functional? c) Why is TEC not requesting to determine compliance with the total group emission limits by means of continuous emission monitoring? d) Is the monitoring equipment and procedure consistent with the requirements of 40 CFR 60 Appendix A Method 6C? e) Is TEC proposing continuous compliance while using the continuous SO₂ monitor?

7. Though not listed as such in the application, Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, is an applicable requirement for Units No. 1-4. This rule limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Please provide assurance as to how this limit will be met in each unit. Is TEC requesting sulfur limits?

8. Please clarify the following stack information provided in the application: a) For the nonintegrated mode, where is the SO₂ emissions sampling port for Steam Generator Unit No. 3? b) Why does Stack #3 include a recirculation duct and why is this not shown on the DOCUMENT II.D.3.G., OVERALL BOILER PROCESS FLOW DIAGRAM, and the BOILER NO. 4 TEST LOCATION - FIGURE 1? c) Why does the BOILER NO. 3 TEST LOCATION - FIGURE 1 show two ESP outlets to the stack and no FGD outlet? d) Based on DOCUMENT II.D.2.C., COMBUSTION EMISSION SOURCES, and DOCUMENT II.D.2.A., BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET, Combustion Sources CS-003 and CS-

004 have separate and distinct emission points (stacks). How can this be true for the integrated mode? Please revise these documents with notations about the integrated mode. e) Please provide a diagram of the Unit No. 3 integrated mode particulate emissions stack (duct) sampling location. f) Is the particulate sampling location shown in BOILER NO. 4 TEST LOCATION - FIGURE 1 the sampling location for the Boiler No. 4 in the integrated mode as well as the non-integrated mode?

9. Deletion of current annual visible emissions testing using EPA or FDEP Reference Method 9 was requested for Steam Generator Units 3 and 4 in the application. Is TEC proposing **continuous compliance** while using the continuous opacity monitors? Is **continuous compliance** being proposed for Unit 3 while it is operating in the non-integrated mode?

10. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the fossil fuel steam generators which have not received a PSD or New Source Review permit must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1, 2, and 3: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

11. Recent information, provided in EPA's final interim report on HAP emissions from fossil fuel-fired electric utility steam generating units, indicates that a large amount of hydrogen fluoride (and, therefore, total fluorides) may be emitted from the Big Bend Station. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application, as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption?

12. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units? c) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? d) Is the petcoke received from only one source? What reasonable assurance can be given that the petcoke is analyzed to the extent to verify that no major amounts of individual HAPs will be emitted from the facility, other than those already listed in the application?

13. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). a) By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or

has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption? b) If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.} c) By not listing arsenic compounds, chromium compounds, or manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons each of arsenic compounds, chromium compounds, and manganese compounds per year? What is the basis for this assumption? d) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds, chromium compounds, or manganese compounds as it does lead. Why are arsenic, chromium, and manganese compounds not identified as pollutants for the facility and each of the steam generator units?

14. The following hazardous air pollutants are listed in the application as being emitted from:

- Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;
- Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;
- Steam Generator Unit No. 4 - Pb, HCl, and HF;
- Combustion Turbine No. 1 - HCl ;
- Combustion Turbine No. 2 - HCl, HF, and Ni;
- Combustion Turbine No. 3 - HCl, and Mn.

- a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?
- b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?
- c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn, when Combustion Turbines No. 1 and No. 2 do not?
- d) Why does Steam Generator No. 3 emit 1,000 pounds or more per year of Mn, when Steam Generators Nos. 1, 2 and 4 do not?

15. Please provide the following additional information about control devices/methods: a) If TEC is adding ammonia to the flue gas from Unit No. 4, ammonia injection should be listed as a control device/method and a detailed description of the process should be submitted. b) If Stack #3 includes a recirculation duct to return exhaust gas to the inlet of the FGD scrubber, Flue Gas Recirculation should be listed as a control device/method and a detailed description of the process should be submitted. c) Please explain why, and in what quantities, TEC is adding SO₃ to the flue gases from Units Nos. 1-3, and quantify the effect on emissions. d) Is the SO₃ purchased or is it created on-site?

16. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

17. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please correct these emissions numbers.

18. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

19. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please submit this section if it is applicable.

20. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

21. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

22. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

23. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073.

24. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. a) Are there any vents or stacks associated with the enclosures? b) Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? c) Is conveyor belt

Mr. Stanley Martin

January 1997

Page 6

CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

25. The modified Conditions of Certification limit the maximum annual transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. We believe this is an error. Please contact Mr. Buck Oven in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.

26. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. Please provide the required process rate information for each transloading source/emissions point by completing the appropriate application sections. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

27. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted by rule, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

28. How many blending bins are there? Please describe how the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?

29. In the application, Table A-1 states that 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants, only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.

30. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?

31. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to any of the coal processing equipment.

32. The following information is requested in order to determine if there are additional sources of particulate matter emissions from solid fuel handling/processing that were not included in the application. a) In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION

SOURCE IDENTIFICATION KEY SHEET", lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate "Transloading" storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time? b) In the application, DOCUMENT II.D.3.D., "FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD", shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process? c) Application DOCUMENT II.D.3.F., "FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS", shows emission points (FH-050 and FH-051) where the crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

33. a) Application DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo? b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? Is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

34. Application DOCUMENT II.D.3.J., "LIMESTONE HANDLING PROCESS FLOW DIAGRAM", shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

35. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

36. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

37. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several segments with the appropriate application sections completed. When creating segments consider operating characteristics. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is? Here are some suggested segments with corresponding SCCs:

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105

Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

38. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

39. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates appear to be 0.58 lb/hr and 0.42 tpy. Please recalculate and verify your numbers.

Fly Ash Handling and Storage Sources

40. a) How is the fly ash, dry and wet, transferred to the silos? b) What is the maximum loading rate to Silo #2? c) Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers? Does Silo #2 handle any wet (pug mill) transfer fly ash? d) How will the future connection between Silo #1 and Silo #2 (as indicated on DOCUMENT II.D.3.K.) impact particulate emissions?

41. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT II.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from off-site actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one on-site fly ash silo to another?

Gypsum Handling and Storage Emission Sources

42. How is the actual sludge dewatering performed? Are there any fugitive particulate emissions associated with this process?

Slag and Bottom Ash Handling

43. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded? Are there any fugitive particulate emissions associated with this process?

Fuel Oil Storage and Handling

Mr. Stanley Martin

January 1997

Page 9

44. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates. (STR-001 and STR-002 contain No. 2 only per Table A-1.) Do the storage tank emit any VOCs or HAPs?

45. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

Abrasive Blast Media Storage

46. What type of abrasive blast media is used? Where does the blasting occur? Please provide information for this source so that it may be included in the Title V permit per Rule 210.300(3)(b).

Ship Repair Facility

47. Based on comments received from EPCHC, , during an EPCHC inspection on June 6, 1994, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this information for an after-the-fact construction application and submit a compliance plan, or indicate why this source does not need to be included in the Title V permit.

List of Proposed Exempt Activities

48. Currently, in order for an emissions unit and/activity to be "exempt" in the Title V permit, the emissions unit and/or activity cannot exceed one or more of the emissions thresholds or have a unit-specific requirement (see Rule 62-213.430(6), F.A.C.). Also, the Department has issued guidance on emission units and/or activities that are considered "trivial" (see enclosed DARM-PER/V-15, revised March 15, 1996). These emissions units and/or activities no longer need to be included in Title V permit applications. "Trivial" emission units and /or activities will not be included in the Title V permit. Please update your attachment "List of Proposed Exempt Activities" and provide sufficient information to classify the emissions units and/or activities into two new categories - those that are "exempt" and those that are "unregulated".

To properly update the "List of Proposed Exempt Activities" you need to consider the requirements of Rule 62-213.430(6), F.A.C. If the answer to any of the following questions is yes, an emissions unit and/or activity cannot be "exempt".

(1) Does any unit or activity have a unit-specific applicable requirement?

(2) Does any unit or activity emit, or have the potential to emit, equal to or greater than:

- 1,000 pounds/year of any hazardous air pollutant (HAP);
- 2,500 pounds/year of total HAPs; and/or
- 5 TPY of any other regulated air pollutant, i.e, volatile organic compound (VOC)?

49. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon

Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

50. Do the vehicle refueling operations dispense 20,000 gallons/month or more of gasoline? If so, Stage I vapor control applies per Rule 62-252.300(1), F.A.C.

Miscellaneous

51. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling and/or washing procedures that are currently being utilized for the Big Bend Station.

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, your response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.

2. Your Title V application requested that a petcoke/coal blend be burned in Steam Generator Units No. 1 and No. 2. Approval to burn this fuel must be obtained through preconstruction

Mr. Stanley Martin

January 1997

Page 11

review (i.e., applying for and receiving an air construction permit). Subsequently, the Title V permit application or permit revision application can be submitted.

3. Though requested in the application, non-hazardous boiler chemical cleaning waste will not be listed as a permitted fuel in the Title V permit.

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or Mr. Scott M. Sheplak, P.E., at (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

Sincerely,

John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/SMS/CLP

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD
Thomas W. Reese, Esq.

FAX

TO: Jerry Campbell, EPCHC
FROM: Cindy Phillips, Bureau of Air Regulation-FDEP
DATE: January 30, 1997
SUBJECT: TEC Big Bend Title V Application - Draft Request for Additional Information

I spoke with Scott Sheplak this morning and made the format changes he requested. (Question #1 was moved to the Information Purposes section, the question (now #76) dealing with exempt activities was changed to standard wording that is being used here, etc.) Since I had more time, I reread the request for info and made some changes of my own, too. I had said that particulate RACT applied to all four Steam Generators but I think that it only applies to Units 1 and 2 because RACT doesn't apply to units that have received a permit in connection with NSR or PSD. I also spoke with Mike Harley about the ASP issue. Though he thought differently at the time the Gannon request for information letter went out in November, he now thinks there might be a way to interpret the CFR so that it wouldn't be necessary to require TEC to get a formal ASP to switch to using CEMs for compliance. I've reworded those questions for clarity.

We would like to send this letter out sometime next week if possible, but I will hold it until you have a chance to meet with Rick and Sterlin and I have received your comments.

-DRAFT-2

Scott
After speaking w/ Mike Harley
this morning I revised
~~conditions~~ questions 11, 13, & 14

-Cindy

CERTIFIED MAIL - Return Receipt Requested

January 1997

Mr. Stanley Martin
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. Although the application states that a petcoke/coal blend is burned in Steam Generator Units No. 1 and No. 2, the firing of petcoke/coal blend fuel is not addressed in current permits for these units. How long has Tampa Electric Company (TEC) been firing a petcoke/coal blend fuel in each unit, and what has been the maximum annual usage in each unit?

2. On what date did TEC first fire the petcoke/coal blend fuel in Unit No. 4? In Unit No. 3?

3. Specific Condition No. 6 of permit PSD-FL-040 requires post-construction continuous ambient monitoring of sulfuric dioxide emissions until determined by the Administrator (or his/her representative) that the effects of the modification on ambient air quality have been quantified. Has the Administrator (or his/her representative) made this determination yet?

4. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on

Mr. Stanley Martin

January 1997

Page 2

average fuel heat content of 11,000 Btu/lb.” Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.

5. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. How long has TEC been using No. 2 fuel oil for start-up in each unit, and what has been the maximum annual usage of No. 2 fuel oil in each unit? Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

6. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) How long has TEC been using used oil to supplement the solid fuel in each unit? b) Is this “on-spec” used oil? c) What has been the maximum annual usage of used oil in each unit? Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions. ~~d) What is the HAPs removal efficiency of each ESP during startup?~~ e) Were the amounts of HAP emissions generated from the burning of used oil considered and included when the potential HAP emissions were identified for the steam generator units and total facility? f) Is the used oil received from only one source? g) What reasonable assurance can be given that the used oil is analyzed to the extent that no major amounts of HAPs will be emitted from the facility, other than those listed in the application? h) How are NO_x emissions affected by the firing of used oil?

7. Although the application states that solid fuels may be supplemented with up to 50 gallons per minute of non-hazardous boiler chemical cleaning waste, the use of cleaning waste is not addressed in current operation permits for these units. a) How long has TEC been using boiler chemical cleaning waste to “supplement” the solid fuel in each unit? What is the heat input value (MMBtu/gallon) of the waste? b) What is the maximum number of gallons burned in each unit on an annual basis? Please submit the Segment (Process/Fuel) Information for boiler chemical cleaning waste for these emission units as required by DEP Form No. 62-210.900(1)-Instructions. c) Assuming it is a batch process, how many batches of boiler cleaning chemical are used to clean a boiler during the cleaning process and how many gallons are in a batch? d) After passing through the boiler, is the hazardous content of the first-pass batch of cleaning solution less than 50 ppm? e) Were the amounts of HAP emissions generated from the burning of the waste considered and included when the potential HAP emissions were identified for the steam generator units and total facility?

8. a) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? b) Is the petcoke received from only one source? c) What reasonable assurance can be given that the petcoke is analyzed to the extent that no major amounts of HAPs will be emitted from the facility, other than those listed in the application?

Mr. Stanley Martin

January 1997

Page 3

9. Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Since the application includes the burning of used oil and boiler chemical cleaning waste, please provide assurance that the SO₂ limit will not be exceeded while burning them. Is TEC requesting sulfur limits?

10. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

11. In the application, TEC's requested Method of Compliance for SO₂ emissions limitations from the Steam Generators is as follows:

Unit No. 1, 2, or 3: weekly composite fuel sampling and fuel analysis
or continuous emission monitoring;
deletion of current requirement for annual stack testing

Units No. 1, 2, and 3, total group: daily composite fuel sampling and analysis;
deletion of current requirement for annual stack testing

In order to determine if an Alternate Sampling Procedure is required, please answer the following questions. a) Is the fuel to be sampled and analyzed for calorific value? b) Is fuel sampling only to be used when the continuous monitor is not functional? c) Why is TEC not requesting to determine compliance with the total group emission limits by means of continuous emission monitoring? d) Is the monitoring equipment and procedure consistent with the requirements of 40 CFR 60 Appendix A Method 6C? e) Is TEC proposing continuous compliance while using the continuous SO₂ monitor?

12. Please explain, in more detail, how compliance with each of the sulfur dioxide limitations is currently determined. For example, please submit documentation to show that each of the Steam Generator Units No. 1 - 4 was in compliance with all of the sulfur dioxide limitations on January 1, 1997. If a unit was not operating on January 1, 1997, please show that it was in compliance on the first day it was in operation in 1997.

13. a) For the nonintegrated mode, where is the SO₂ emissions sampling port for Steam Generator Unit No. 3? b) Why does Stack #3 include a recirculation duct and why is this not shown on the DOCUMENT II.D.3.G., OVERALL BOILER PROCESS FLOW DIAGRAM, and the BOILER NO. 4 TEST LOCATION - FIGURE 1? c) Why does the BOILER NO. 3 TEST LOCATION - FIGURE 1 show two ESP outlets to the stack and no FGD outlet?

14. Based on DOCUMENT II.D.2.C., COMBUSTION EMISSION SOURCES, and DOCUMENT II.D.2.A., BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET, Combustion Sources CS-003 and CS-004 have separate and distinct emission points (stacks). a) How can this be true for the integrated mode? Please revise these documents with notations about the integrated mode. b) For Steam Generator Units No. 3 and No. 4, is TEC requesting annual particulate stack-testing conducted for each unit in the integrated mode or the non-integrated mode if both modes have been utilized during the federal fiscal year? c) Please

provide a diagram of the Unit No. 3 integrated mode particulate emissions stack (duct) sampling location. d) Is the particulate sampling location shown in BOILER NO. 4 TEST LOCATION - FIGURE 1 the sampling location for the Boiler No. 4 in the integrated mode as well as the non-integrated mode? e) By requesting, for Units No. 3 and 4, the option to use three soot-blowing test runs to demonstrate compliance with the non-soot blowing standard, is TEC stating that the non-sootblowing standard can always be met while in the soot-blowing mode? f) Is TEC proposing continuous compliance while using the continuous opacity monitor?

15. Please specify whether compliance with the nitrogen oxides (NO_x) emissions limits for Steam Generator Units No. 3 and No. 4 shall be determined by measuring the NO_x emitted from each individual unit or by measuring the emissions from the common stacks.

16. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the combustion sources must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1- 4: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

17. During an EPCHC inspection performed on September 16, 1996, significant fugitive emissions were observed coming from the Steam Generator Unit No. 2 furnace. Please explain what actions have been, or will be, taken to correct this problem. Please address the control of fugitive emissions in the maintenance plan for each of the four steam generators.

18. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption?

19. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption? If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.}

20. a) By not listing manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of manganese compounds per year? What is the basis for this assumption? b) If the facility does not exceed this major source threshold for manganese compounds, why are the manganese compounds emissions for Steam Generator Unit No. 3 identified in the emissions

unit Pollutant Information section? c) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much manganese compounds as it does lead. Why is manganese only identified as being emitted from Steam Generator No. 3 and not Units 1, 2, or 4?

21. a) By not listing arsenic compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of arsenic compounds per year? What is the basis for this assumption?
b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds as it does lead. Why is arsenic not identified as a pollutant for the facility and each of the steam generator units?

22. a) By not listing chromium compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of chromium compounds per year? What is the basis for this assumption?
b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit twice as much chromium compounds as it does lead. Why is chromium not identified as a pollutant for the facility and each of the steam generator units?

23. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units?

24. The following hazardous air pollutants are listed in the application as being emitted from:
Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;
Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;
Steam Generator Unit No. 4 - Pb, HCl, and HF;
Combustion Turbine No. 1 - HCl ;
Combustion Turbine No. 2 - HCl, HF, and Ni;
Combustion Turbine No. 3 - HCl, and Mn.

a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?
b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?
c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn when Combustion Turbines No. 1 and No. 2 do not?

25. Please explain why, and in what quantities, TEC is currently reinjecting fly ash to the flue gases, and quantify the effect on emissions. When did TEC begin reinjecting fly ash to the flue gases?

26. a) Please explain why, and in what quantities, TEC is currently adding ammonia to the flue gas from Unit No. 4, and SO₃ to the flue gases from Units No. 1-3, and quantify the effect on emissions. When did TEC begin adding ammonia and SO₃ to the flue gases?

Mr. Stanley Martin

January 1997

Page 6

27. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

28. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please explain this discrepancy.

29. The maximum annual rate of No. 2 distillate fuel oil burned in each of the three combustion turbines (as submitted in the application), divided by the maximum hourly burning rate for each of the three turbines (as submitted in the application), indicates that each turbine operates 8760 hours per year. However, the construction permits for the turbines limit the hours of operation to 10 hrs/day, 365 days a year, which equates to 3650 hours per year. Please explain this discrepancy.

30. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

31. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please submit this section if it is applicable.

32. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

33. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

34. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

35. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073. Please certify that the coal yard is in compliance pursuant to this condition of certification and provide the required control device information or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

36. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. Are, in fact, all of the conveyors and transfer points enclosed? Are there any vents or stacks associated with the enclosures? Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? Is conveyor belt CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

37. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

38. The modified Conditions of Certification limit the maximum annual transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. Is TEC actually complying with the more stringent transloading limit of 4000 tons per year? If TEC does not want this more stringent annual limit included in the Title V permit, please contact Mr. Buck Oven in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.

39. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. This information is not on file. Please submit these missing 1994 and 1995 annual process rates. Please provide the required process rate information for each transloading source/emissions point and certify that the combined total amount of transloading of solid fuel at each transloading source/emission point is in compliance pursuant to the conditions of certification or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

40. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC

Mr. Stanley Martin

January 1997

Page 8

requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

41. How many blending bins are there? How are the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?

42. Where in the process is the coal sampled for analysis? Where in the process is the petroleum coke/coal blend sampled for analysis? What is the frequency of sampling and analysis?

43. Please explain why more recent fuel analyses for the coal/petroleum coke blend fired in Steam Generator Unit No. 4 were not submitted with the application. Please explain why the fuel analyses parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.

44. In the application, Table A-1 states that 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants, only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.

45. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?

46. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to the coal handling equipment. Based on the process rate table, and a process rate of 4000 tons/hour, the allowable particulate matter emission rate for the solid fuel handling equipment is 285.8 tons/year.

47. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate "Transloading" storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time?

48. In the application, DOCUMENT II.D.3.D., "FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD", shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process?

49. Application DOCUMENT II.D.3.F., "FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS", shows emission points (FH-050 and FH-051) where the

crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

50. a) Application DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? What are the collection ranges of each of the baghouses? For instance, is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo? b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? What are the collection ranges of each of the baghouses? For instance, is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

51. Application DOCUMENT II.D.3.J., "LIMESTONE HANDLING PROCESS FLOW DIAGRAM", shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

52. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

53. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

54. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several emission units with the appropriate application sections completed. When creating emission units consider operating modes. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is?

Here are some suggested emission units with corresponding SCCs:

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105
Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

55. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

56. The exit grain loading estimates are based on the high moisture content of the limestone. What is the moisture content? What is the basis of the estimate of an exit grain loading of 0.002 gr/dscf for limestone of this moisture content? Please provide additional information to document the source of this emission factor. Is this factor based on stack testing, vendor's guarantee, or some other data?

57. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates would be 0.58 lb/hr and 0.42 tpy. Please explain this discrepancy.

58. Is it possible for a limestone railcar to unload while a limestone truck is unloading?

59. What are the estimated annual fugitive emissions from the limestone truck traffic?

Fly Ash Handling and Storage Sources

60. The application requests, and the current permit reflects, an allowable emission limitation of 22.62 tons/year based on a baghouse emission factor of 0.03 gr/dscf. The application states that the 0.03 gr/dscf factor is "Typical baghouse exit loading: ECT, 1995." Please provide additional information to document the source of this emission factor. Is this factor based on stack testing, vendor's guarantee, or some other data?

61. In the application, DOCUMENT II.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", shows a "FUTURE" connection between Silo #1 and Silo #2. Please explain.

62. Does Silo #2 handle any wet (pug mill) transfer fly ash?

63. How is the fly ash, dry and wet, transferred to the silos? What is the maximum loading rate to Silo #2? Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers?

64. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT II.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from off-site actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one on-site fly ash silo to another?

65. What are the estimated annual fugitive emissions from the fly ash truck traffic?

Gypsum Handling and Storage Emission Sources

66. In the application, DOCUMENT I.I.D.2.A., "BIG BEND STATIONARY EMISSION SOURCE IDENTIFICATION KEY SHEET", describes empty trucks (emission points GH-006 and GH-017 as going "to Off-Site". Is this correct, or would it be more accurate to say that the empty trucks are coming "from Off-Site"?

67. What is the minimum moisture content of the gypsum that is being loaded onto the trucks in the North Stackout Area? In the Long Term Storage Area?

68. Where is the actual sludge dewatering performed? It does not appear to be identified on any of the figures included in the application.

Slag and Bottom Ash Handling

69. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded?

Fuel Oil Storage and Handling

70. Is all fuel oil brought into the facility by barge and then pumped to the fuel oil storage tanks? What is the total number of fuel oil storage tanks?

71. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates.(STR-001 and STR-002 No. 2 only per Table A-1.)

72. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

73. The Used Oil Analysis submitted in the application lists the "Sample Collector" as "GANNON". Was Gannon actually the name of the person who collected the sample, or was this sample collected at the TEC Gannon facility?

Sulfur Storage and Handling

74. Please explain why this equipment was never permitted. You must submit the required after-the-fact construction permit application information for this equipment and submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

Abrasive Blast Media Storage

75. What type of abrasive blast media is used? Where does the blasting occur? Please explain why this emission unit was never permitted.

Ship Repair Facility

76. On June 6, 1994, during an EPCHC inspection, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this application information.

List of Proposed Exempt Activities

77. Please review the Division guidance memo DARM-PER/V-15, "Trivial List of Activities at a Title V Facility" and revise the submitted "List of Proposed Exempt Activities" accordingly. Previous Department consensus is not applicable.

78. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

79. Do the storage tanks listed emit VOCs or HAPs?

80. Do the vehicle refueling operations dispense more than 20,000 gallons/month of gasoline? If so, Stage I vapor control applies.

81. Which belt conveyors are being referred to in this list?

Miscellaneous

82. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling procedures that are currently being utilized at the Big Bend Station.

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, your response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a

Mr. Stanley Martin
January 1997
Page 13

new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.

The Department must receive a response from you (the applicant) within 90 days of receipt of this letter, unless you request additional time as described in Rule 62-213.420 (1)(b)6., F.A.C. Failure to submit corrected or supplementary information within 90 days, or such additional time as requested and granted, shall render the application incomplete.

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or me at (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

Sincerely,

John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/clp

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD

Thomas Reese E 4/5

-DRAFT2-

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

January 1997

Mr. Stanley Martin
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0570039-002-AV
Big Bend Station, Hillsborough County

Dear Mr. Martin:

Your initial Title V permit application for the Big Bend Station was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your permit application, the Department will need the additional information below pursuant to Rule 62-213.420(1)(b)3., F.A.C. and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Combustion Sources

1. On what date did TEC first fire the petcoke/coal blend fuel in Unit No. 4? In Unit No. 3?
2. Specific Condition No. 6 of permit PSD-FL-040 requires post-construction continuous ambient monitoring of sulfuric dioxide emissions until determined by the Administrator (or his/her representative) that the effects of the modification on ambient air quality have been quantified. Has the Administrator (or his/her representative) made this determination yet?
3. On the Segment (Process/Fuel) Information part of the application for Steam Generator Units Nos. 1-4, The Segment Comment field states that the "Btu per SCC unit value (Field 9) based on average fuel heat content of 11,000 Btu/lb." Is this the average heat input of all the coal fired, or the average heat input of all the coal and petcoke/coal blend combined? Why is this heat content lower than the minimum heat content shown in fuel analyses submitted? Please submit a separate Segment (Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions.

4. Although the application states that No. 2 fuel oil is used for ignition during start-up for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of No. 2 fuel oil is not addressed in current operation permits for these units. How long has TEC been using No. 2 fuel oil for start-up in each unit, and what has been the maximum annual usage of No. 2 fuel oil in each unit? Please submit the Segment (Process/Fuel) Information for fuel oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions.

5. Although the application states that solid fuels may be supplemented with used oil for Steam Generator Units No. 1, No. 2, No. 3 and No. 4, the firing of used oil is not addressed in current operation permits for these units. a) How long has TEC been using used oil to supplement the solid fuel in each unit? b) Is this "on-spec" used oil? c) What has been the maximum annual usage of used oil in each unit? Please submit the Segment (Process/Fuel) Information for used oil for these emission units as required by DEP Form No. 62-210.900(1)-Instructions. d) Were the amounts of HAP emissions generated from the burning of used oil considered and included when the potential HAP emissions were identified for the steam generator units and total facility? e) Is the used oil received from only one source? f) What reasonable assurance can be given that the used oil is analyzed to the extent that no major amounts of HAPs will be emitted from the facility, other than those listed in the application? g) How are NO_x emissions affected by the firing of used oil?

6. Although the application states that solid fuels may be supplemented with up to 50 gallons per minute of non-hazardous boiler chemical cleaning waste, the use of cleaning waste is not addressed in current operation permits for these units. a) How long has TEC been using boiler chemical cleaning waste to "supplement" the solid fuel in each unit? What is the heat input value (MMBtu/gallon) of the waste? b) What is the maximum number of gallons burned in each unit on an annual basis? Please submit the Segment (Process/Fuel) Information for boiler chemical cleaning waste for these emission units as required by DEP Form No. 62-210.900(1)-Instructions. c) Assuming it is a batch process, how many batches of boiler cleaning chemical are used to clean a boiler during the cleaning process and how many gallons are in a batch? d) After passing through the boiler, is the hazardous content of the first-pass batch of cleaning solution less than 50 ppm? e) Were the amounts of HAP emissions generated from the burning of the waste considered and included when the potential HAP emissions were identified for the steam generator units and total facility?

7. a) Were the amounts of HAP emissions generated from the burning of petcoke considered when the potential HAP emissions were identified for the steam generator units and total facility? b) Is the petcoke received from only one source? c) What reasonable assurance can be given that the petcoke is analyzed to the extent that no major amounts of HAPs will be emitted from the facility, other than those listed in the application?

8. Rule 1-3.63(c), Rules of the Environmental Protection Commission of Hillsborough County, limits emissions from fossil fuel steam generators to 1.1 pounds SO₂ per million Btu heat input when liquid fuel is burned. Since the application includes the burning of used oil and boiler chemical cleaning waste, please provide assurance that the SO₂ limit will not be exceeded while burning them. Is TEC requesting sulfur limits?

Mr. Stanley Martin

January 1997

Page 3

9. Due to the fact that the Segment (Process/Fuel) Information for Steam Generation Units Nos. 1-4 was not submitted for any liquid fuel/waste fired, and there was no differentiation made between coal and the petroleum coke/coal blend, please confirm that all pollutant emissions are at their maximum when coal is fired and that is the data which has been submitted in the application. If this is not true, please change the pollutant emission data to reflect the worst-case scenario fuel/fuel combination.

10. In the application, TEC's requested Methods of Compliance for SO₂ emissions limitations from the Steam Generators are as follows:

Unit No. 1, 2, or 3: weekly composite fuel sampling and fuel analysis
or continuous emission monitoring;
deletion of current requirement for annual stack testing

Units No. 1, 2, and 3, total group: daily composite fuel sampling and analysis;
deletion of current requirement for annual stack testing

In order to determine if an Alternate Sampling Procedure review is required, please answer the following questions. a) Is the fuel to be sampled and analyzed for calorific value? b) Is fuel sampling only to be used when the continuous monitor is not functional? c) Why is TEC not requesting to determine compliance with the total group emission limits by means of continuous emission monitoring? d) Is the monitoring equipment and procedure consistent with the requirements of 40 CFR 60 Appendix A Method 6C? e) Is TEC proposing continuous compliance while using the continuous SO₂ monitor?

11. Please explain, in more detail, how compliance with each of the sulfur dioxide limitations is currently determined. For example, please submit documentation to show that each of the Steam Generator Units No. 1 - 4 was in compliance with all of the sulfur dioxide limitations on January 1, 1997. If a unit was not operating on January 1, 1997, please show that it was in compliance on the first day it was in operation in 1997.

12. a) For the nonintegrated mode, where is the SO₂ emissions sampling port for Steam Generator Unit No. 3? b) Why does Stack #3 include a recirculation duct and why is this not shown on the DOCUMENT II.D.3.G., OVERALL BOILER PROCESS FLOW DIAGRAM, and the BOILER NO. 4 TEST LOCATION - FIGURE 1? c) Why does the BOILER NO. 3 TEST LOCATION - FIGURE 1 show two ESP outlets to the stack and no FGD outlet?

13. Based on DOCUMENT II.D.2.C., COMBUSTION EMISSION SOURCES, and DOCUMENT II.D.2.A., BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET, Combustion Sources CS-003 and CS-004 have separate and distinct emission points (stacks). a) How can this be true for the integrated mode? Please revise these documents with notations about the integrated mode. b) For Steam Generator Units No. 3 and No. 4, is TEC requesting annual particulate stack-testing conducted for each unit in the integrated mode or the non-integrated mode if both modes have been utilized during the federal fiscal year? c) Please provide a diagram of the Unit No. 3 integrated mode particulate emissions stack (duct) sampling location. d) Is the particulate sampling location shown in BOILER NO. 4 TEST LOCATION - FIGURE 1 the sampling location for the Boiler No. 4 in the integrated mode as well as the non-integrated mode? e) By requesting, for Units No. 3 and 4, the option to use three soot-blowing test runs to demonstrate compliance with the non-soot blowing standard, is TEC stating that the non-

sootblowing standard can always be met while in the soot-blowing mode? f) Is TEC proposing **continuous compliance** while using the continuous opacity monitor?

14. Please specify whether compliance with the nitrogen oxides (NO_x) emissions limits for Steam Generator Units No. 3 and No. 4 shall be determined by measuring the NO_x emitted from each individual unit or by measuring the emissions from the common stacks.

15. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, the fossil fuel steam generators which have not received a PSD or New Source Review permit must comply with section 62-296.700, Reasonably Available Control Technology (RACT) Particulate Matter, F.A.C. Please provide the following information for Steam Generator Unit Nos. 1- 2: maximum dry standard volumetric flow rate, moisture content of gas stream that is emitted, and an operation and maintenance plan as described in Rule 62-296.700(6), F.A.C.

16. During an EPCHC inspection performed on September 16, 1996, significant fugitive emissions were observed coming from the Steam Generator Unit No. 2 furnace. Please explain what actions have been, or will be, taken to correct this problem. Please address the control of fugitive emissions in the maintenance plan of each of the steam generators.

17. By not listing total fluorides as a pollutant in the Facility Pollutant Information section of the application as required by 62-213.420(3)(c), F.A.C., is TEC stating that the Big Bend Station emits or has the potential to emit less than 100 tons of total fluorides per year? What is the basis of this assumption?

18. Rule 62-213.420(3)(c), F.A.C., states that each Title V source that emits or has the potential to emit any hazardous air pollutant or total hazardous air pollutants in a major amount (5 tons per year for lead, 10 tons per year for any other hazardous air pollutant, 25 tons per year for total hazardous air pollutants) must identify, for each emissions unit, each such pollutant which the applicant knows or has reason to believe would be emitted in an amount equal to or greater than 1,000 pounds per year for each individual hazardous air pollutant (HAP) or 2,500 pounds per year for total hazardous air pollutants (HAPS). By not listing lead as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 5 tons of lead per year? What is the basis of this assumption? If the facility does not exceed this major source threshold for lead, why are the lead emissions for each unit identified in the emissions units Pollutant Information sections? {Note: In the Annual Operating Report for 1995, TEC reported annual lead emissions of 32.5 tons for the facility.}

19. a) By not listing manganese compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of manganese compounds per year? What is the basis for this assumption? b) If the facility does not exceed this major source threshold for manganese compounds, why are the manganese compounds emissions for Steam Generator Unit No. 3 identified in the emissions unit Pollutant Information section? c) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much manganese compounds as it does lead. Why is manganese only identified as being emitted from Steam Generator No. 3 and not Units 1, 2, or 4?

Mr. Stanley Martin

January 1997

Page 5

20. a) By not listing arsenic compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of arsenic compounds per year? What is the basis for this assumption?
b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit as much arsenic compounds as it does lead. Why is arsenic not identified as a pollutant for the facility and each of the steam generator units?
21. a) By not listing chromium compounds as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 10 tons of chromium compounds per year? What is the basis for this assumption?
b) Based on emission factors from AP-42 Table 1.1-13 (1/95), the facility emits or has the potential to emit twice as much chromium compounds as it does lead. Why is chromium not identified as a pollutant for the facility and each of the steam generator units?
22. a) By not listing total hazardous air pollutants (HAPS) as a pollutant in the Facility Pollutant Information section of the application, is TEC stating that the Big Bend Station emits or has the potential to emit less than 25 tons of HAPS per year? What is the basis for this assumption? b) Based on reported lead emissions alone, the facility emits or has the potential to emit more than 25 tons per year of HAPS and each of the four steam generator units emits more than 2500 pounds per year. Why are HAPS not identified as a pollutant for the facility and each of the steam generator units?
23. The following hazardous air pollutants are listed in the application as being emitted from:
Steam Generator Units No. 1 and 2 - Pb, HCl, HF, Ni, and Se;
Steam Generator Unit No. 3 - Pb, HCl, HF, Mn, Ni, and Se;
Steam Generator Unit No. 4 - Pb, HCl, and HF;
Combustion Turbine No. 1 - HCl ;
Combustion Turbine No. 2 - HCl, HF, and Ni;
Combustion Turbine No. 3 - HCl, and Mn.
- a) Why does Steam Generator Unit No. 4 not emit 1,000 pounds or more per year each of Se and Ni, when Units 1, 2 and 3 do?
b) Why does Combustion Turbine No. 2 emit 1,000 pounds or more per year each of HF and Ni, when Combustion Turbines No. 1 and No. 3 do not?
c) Why does Combustion Turbine No. 3 emit 1,000 pounds or more per year of Mn when Combustion Turbines No. 1 and No. 2 do not?
24. Please explain why, and in what quantities, TEC is currently reinjecting fly ash to the flue gases, and quantify the effect on emissions. When did TEC begin reinjecting fly ash to the flue gases?
25. a) Please explain why, and in what quantities, TEC is currently adding ammonia to the flue gas from Unit No. 4, and SO₃ to the flue gases from Units No. 1-3, and quantify the effect on emissions. When did TEC begin adding ammonia and SO₃ to the flue gases?
26. In the Emission Inventory Worksheet for Unit No. 3 on page CS-003 of Appendix C, how was the NO_x potential emission rate calculated to be 3154.1 tpy? Should this not be 12,616.6 tpy as shown on the Appendix B Emission Rate Summary sheet?

27. In the Emission Inventory Worksheet for Unit No. 4 on page CS-004 of Appendix C, and on the Appendix B Emission Rate Summary sheet, the CO potential emission rates are listed as 125.6 lb/hr and 550 tpy. However, Permit No. PSD-FL-040 (October 9, 1985 Modification) limits the CO emissions to 124 lb/hr, which equates to 543 tpy. Please explain this discrepancy.

28. The maximum annual rate of No. 2 distillate fuel oil burned in each of the three combustion turbines (as submitted in the application), divided by the maximum hourly burning rate for each of the three turbines (as submitted in the application), indicates that each turbine operates 8760 hours per year. However, the construction permits for the turbines limit the hours of operation to 10 hrs/day, 365 days a year, which equates to 3650 hours per year. Please explain this discrepancy.

29. Is Steam Generator Unit No. 4 a tangentially fired boiler or a dry bottom wall-fired boiler? The Source Classification Code (SCC) listed in the application for Steam Generator Unit No. 4 is 1-01-002-02 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Bituminous Coal). However, if Unit No. 4 is tangentially fired (as stated elsewhere in the application and in the monitoring plan for Unit No. 4, the more appropriate SCC would be 1-01-002-12 which designates an Electric Generation External Combustion Boiler, Pulverized Coal: Dry Bottom (Tangential)(Bituminous Coal). Also, if it is tangentially fired, why is Unit No. 4 not listed in "Table 1 - Phase I Tangentially Fired Units," 40 CFR 76 Appendix A? Is this due to the fact that Unit No. 4 was not originally a Phase I Unit?

30. Though referenced in the Emissions Unit Supplemental Information sections for Steam Generator Units No. 2, 3, and 4, supplemental information section III.I.11, Alternative Modes of Operation (Emissions Trading), was not included with the application. Please submit this section if it is applicable.

31. Facility Pollutant Detail Information was not provided. Please submit this section of the application to identify the multi-unit emissions caps. For example, there are multi-unit emissions caps for sulfur dioxide emissions from Steam Generator Units 1-3.

Solid Fuel Handling

32. Please submit a separate Segment(Process/Fuel) Information form for each type of solid fuel as required by DEP Form No. 62-210.900(1)-Instructions. Please submit revisions to drawings and diagrams as needed. For example, if specific storage piles or conveyors are used for petroleum coke/coal blend fuel only, please indicate this on the drawings and diagrams.

33. Particulate emissions estimates should be based on the solid fuel which has the potential to emit the most particulate matter. Which solid fuel has the potential to emit the most particulate matter when handled? Please submit documentation to support your conclusion.

34. The Condition I.A.3. of the PA 79-12 Conditions of Certification (revised 6-2-81 and modified 9-13-95) states that particulate emissions from the coal handling facilities shall be controlled by use of control devices. Within ten (10) working days after it became available, TEC was required to submit technical data pertaining to the selected particulate emissions control for the coal handling facility. This information was to include, but not be limited to, guaranteed

efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. However, there is no mention of any control devices for the conveyors and transfer points in the Title V application. Please clarify what types of particulate controls are used for each of the solid fuel handling and storage sources FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, and FH-063 through FH-073. Please certify that the coal yard is in compliance pursuant to this condition of certification and provide the required control device information or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

35. Specific Condition No. 5.a. of Permit No. PSD-FL-040 for Steam Generator Unit No. 4 requires that all conveyors and conveyor transfer points (except the coal handling stacker reclaimer, the tail end conveyor feeding tripper and the barge unloading belt) be enclosed to minimize fugitive emissions of particulate matter. Are, in fact, all of the conveyors and transfer points enclosed? Are there any vents or stacks associated with the enclosures? Which identification numbers in the application Document II.D.2.A. correspond to the coal handling stacker reclaimer and the tail end conveyor feeding tripper? Is conveyor belt CB-A1 moved to line up with a barge, or does the barge line up with CB-A1 to unload? Is conveyor belt CB-B1 moved to line up with CB-A1, or does CB-B1 stay in one place?

36. At Big Bend Station, what annual quantities of fuels is TEC receiving, handling, blending, and/or shipping for the TEC Polk Power Generating Station?

37. The modified Conditions of Certification limit the maximum annual transloading of solid fuel to 4000 tons in Condition No. I.A.3.d. and 1,428,030 tons in Condition No. I.A.3e. Is TEC actually complying with the more stringent transloading limit of 4000 tons per year? If TEC does not want this more stringent annual limit included in the Title V permit, please contact Mr. Buck Oven in the Department's Power Plant Siting Office to arrange to have this condition revised in the Conditions of Certification.

38. The Conditions of Certification require that the annual quantity of solid fuel loaded by each transloading source/emission point be submitted to the EPCHC in an annual operating report. This information is not on file. Please submit these missing 1994 and 1995 annual process rates. Please provide the required process rate information for each transloading source/emissions point and certify that the combined total amount of transloading of solid fuel at each transloading source/emission point is in compliance pursuant to the conditions of certification or submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

39. The Big Bend Station is located in an area of influence of a particulate matter air quality maintenance area. Therefore, unless exempted, materials handling, sizing, screening, crushing, and grinding operations are regulated by the particulate matter RACT requirements in Rule 62-296.711, F.A.C. In the application Table A-2, TEC states that RACT only applies to the conveyors to the blending bins [CH-032 through CH-035], and to the conveyors to the coal bunkers [CH-059 through CH-062], assuming that CH = FH in Document II.D.2.A. Is TEC requesting that the other solid fuel handling equipment (other than the storage piles) be exempted from RACT? If so, on what basis?

40. How many blending bins are there? How are the petcoke/coal blend and the (approximately) 3.5% sulfur coal that are fired in Steam Generator Unit No. 4 kept segregated from the lower-sulfur coal that is fed to Steam Generator Units No. 1-3?
41. Where in the process is the coal sampled for analysis? Where in the process is the petroleum coke/coal blend sampled for analysis? What is the frequency of sampling and analysis?
42. Please explain why more recent fuel analyses for the coal/petroleum coke blend fired in Steam Generator Unit No. 4 were not submitted with the application. Please explain why the fuel analyses parameters list Sulfur in coal, and BTU in coal, etc., but make no mention of the petroleum coke or a blend.
43. In the application, Table A-1 states that 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants, only applies to emission units CH-048 through CH-052 (CH = FH in Document II.D.2.A?), CH-055 and CH-056. Please explain why TEC believes that Subpart Y does not apply to the other solid fuel handling sources (excluding storage piles) listed in Document II.D.2.A.
44. a) The Pollutant Information section for estimated particulate matter emissions lists an emissions factor of 0.01. In what section of AP-42 was the emissions factor of 0.01 obtained? The calculations of emissions were not included in Appendix C. b) Tampa Electric Company reported total particulate matter emissions from the coal yard to be 641 tons for calendar year 1995. Please explain why your application states that the particulate matter emissions are estimated to be 25 to 100 tons per year?
45. Please explain why TEC believes that the process weight table found in Rule 62-296.320(4)2., F.A.C., does not apply to the coal handling equipment. Based on the process rate table, and a process rate of 4000 tons/hour, the allowable particulate matter emission rate for the solid fuel handling equipment is 285.8 tons/year.
46. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists a Source ID, FH-067, as the Transloading Storage Pile to Loadout Conveyor. Is there actually a separate "Transloading" storage pile, or is this merely a reference to the north, south, or middle storage pile, whichever is being used as the transloading loadout storage pile at a given time?
47. In the application, DOCUMENT II.D.3.D., "FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD", shows dozer operations on the Long Term Fuel Storage Pile. From what location(s) in the fuel handling process does the dozer bring the fuel to the pile, and to which location(s) is the fuel from the pile returned to the process?
48. Application DOCUMENT II.D.3.F., "FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS", shows emission points (FH-050 and FH-051) where the crushers discharge onto conveyor belts CB-W1 and CB-W2. Why is there not a corresponding emission point shown for where the crushers discharge onto conveyor belt CB-U?

Limestone Handling

49. a) Application DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", lists two emission points (LSH-004 and LSH-005) from Conveyor LE to the South Storage Silo. Are these two emission points the exhausts from the two baghouses DC-4 & DC-5? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? What are the collection ranges of each of the baghouses? For instance, is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the south storage silo? b) Similarly, two emission points (LSH-006 and LSH-007) are listed for Conveyor LE to the North Storage Silo. Are these two emission points the exhausts from the two baghouses DC-6 & DC-7? Are each of these baghouses a Flex Kleen Model No. 58-BVBC-36-IIG? What are the collection ranges of each of the baghouses? For instance, is one of the baghouses controlling dust from conveyor belt LE, or are both baghouses collecting dust from the north storage silo?

50. Application DOCUMENT II.D.3.J., "LIMESTONE HANDLING PROCESS FLOW DIAGRAM", shows unidentified conveyors from the storage silos to the ball mills. Please identify these conveyors and any emission points from them.

51. No emissions are indicated from the ball mills. Please explain how emissions are controlled. Also, please explain where the limestone goes after it is ground, the method of conveying the ground limestone, and any associated emission points.

52. No emissions are indicated from the limestone storage building. Please explain how fugitive emissions are controlled at the entrance and exit from the building.

53. All of the limestone handling and storage sources are grouped together as one emission unit with one Standard Classification Code (SCC), 30510105 (Bulk Materials Conveyors-Limestone), with a maximum process rate of 168 tons/hr and requested hours of operation of 8760 hours per year. Please break this one emission unit down into several emission units with the appropriate application sections completed. When creating emission units consider operating modes. For example, is a maximum process rate of 168 tons/hr a realistic rate for truck unloading? Is conveyor belt CB-LC always operating when CB-LB is? When CB-LD is?

Here are some suggested emission units with corresponding SCCs:

<u>Emission Unit</u>	<u>SCC</u>
Limestone Railcar/Truck Unloading	30510405
Limestone Transfer Tower LL1	30510105
Enclosed Limestone Storage Structure (fugitive emissions?)	30510205
Limestone Transfer Tower LL2	30510205
South Limestone Storage Tower	30510205
North Limestone Storage Tower	30510205
South Limestone Ball Mill	30501601
North Limestone Ball Mill	30501601

54. Why are the requested hours of operation 8760 hours per year when the potential emissions, on the Emission Inventory Worksheets LSH-001 through LSH-007, are calculated on the basis of 1460 hours per year? How were the potential emissions of 6.07 lb/hr and 4.45 tons/year calculated?

55. The exit grain loading estimates are based on the high moisture content of the limestone. What is the moisture content? What is the basis of the estimate of an exit grain loading of 0.002 gr/dscf for limestone of this moisture content? Please provide additional information to document the source of this emission factor. Is this factor based on stack testing, vendor's guarantee, or some other data?

56. The potential PM emissions shown on Emission Inventory Worksheet LSH-001 are 0.65 lb/hr and 0.47 tpy. However, based on the equation, operating hours, exhaust flow rate, and exit grain loading given, the potential PM emission rates would be 0.58 lb/hr and 0.42 tpy. Please explain this discrepancy.

57. Is it possible for a limestone railcar to unload while a limestone truck is unloading?

58. What are the estimated annual fugitive emissions from the limestone truck traffic?

Fly Ash Handling and Storage Sources

59. The application requests, and the current permit reflects, an allowable emission limitation of 22.62 tons/year based on a baghouse emission factor of 0.03 gr/dscf. The application states that the 0.03 gr/dscf factor is "Typical baghouse exit loading: ECT, 1995." Please provide additional information to document the source of this emission factor. Is this factor based on stack testing, vendor's guarantee, or some other data?

60. In the application, DOCUMENT II.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", shows a "FUTURE" connection between Silo #1 and Silo #2. Please explain.

61. Does Silo #2 handle any wet (pug mill) transfer fly ash?

62. How is the fly ash, dry and wet, transferred to the silos? What is the maximum loading rate to Silo #2? Why are there particulate emissions (FA-003 and FA-008) associated with the "wet" transfers?

63. In the application, DOCUMENT II.D.2.A., "BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET", describes trucks unloading fly ash into Silo #1 but does not describe trucks unloading into Silo #2 or #3. However, DOCUMENT II.D.3.K., "FLYASH HANDLING PROCESS FLOW DIAGRAM", does show trucks unloading fly ash into Silo #2 and Silo #3. Do trucks unload fly ash into Silo #2 and Silo #3 or not? Is fly ash from off-site actually trucked into the facility and unloaded into the fly ash silos, or is the truck unloading process simply a way of transferring fly ash from one on-site fly ash silo to another?

64. What are the estimated annual fugitive emissions from the fly ash truck traffic?

Gypsum Handling and Storage Emission Sources

65. In the application, DOCUMENT II.D.2.A., "BIG BEND STATIONARY EMISSION SOURCE IDENTIFICATION KEY SHEET", describes empty trucks (emission points GH-006 and GH-017 as going "to Off-Site". Is this correct, or would it be more accurate to say that the empty trucks are coming "from Off-Site"?

66. What is the minimum moisture content of the gypsum that is being loaded onto the trucks in the North Stackout Area? In the Long Term Storage Area?

67. Where is the actual sludge dewatering performed? It does not appear to be identified on any of the figures included in the application.

Slag and Bottom Ash Handling

68. How long does the slag and the bottom ash typically stay in the stackout piles before it is loaded into trucks? Is it still wet when loaded?

Fuel Oil Storage and Handling

69. Is all fuel oil brought into the facility by barge and then pumped to the fuel oil storage tanks? What is the total number of fuel oil storage tanks?

70. Please provide a list of the contents and capacities of the storage tanks STR-001 through STR-009. Please also list the construction dates and any modification or reconstruction dates.(STR-001 and STR-002 No. 2 only per Table A-1.)

71. The No. 2 Fuel Oil Analysis submitted in the application lists the heat content units as "Btu/lb". Is this correct?

72. The Used Oil Analysis submitted in the application lists the "Sample Collector" as "GANNON". Was Gannon actually the name of the person who collected the sample, or was this sample collected at the TEC Gannon facility?

Sulfur Storage and Handling

73. Please explain why this equipment was never permitted. You must submit the required after-the-fact construction permit application information for this equipment and submit a compliance plan pursuant to Rule 62-213.420(3)(j), F.A.C.

Abrasive Blast Media Storage

74. What type of abrasive blast media is used? Where does the blasting occur? Please explain why this emission unit was never permitted.

Ship Repair Facility

75. On June 6, 1994, during an EPCHC inspection, a ship repair facility (GC Services, a TEC Transport Company) was found operating along side the Big Bend Station coal yard. TEC

provided information regarding this operation following an inspection performed on December 6, 1994. During that inspection, EPCHC was informed that the operations would be included in the Title V application for the power plant. Please provide this application information.

List of Proposed Exempt Activities

76. Currently, in order for an emissions unit and/activity to be "exempt" in the Title V permit, the emissions unit and/or activity cannot exceed one or more of the emissions thresholds or have a unit-specific requirement (see Rule 62-213.430(6), F.A.C.). Also, the Department has issued guidance on emission units and/or activities that are considered "trivial" (see enclosed DARM-PER/V-15, revised March 15, 1996). These emissions units and/or activities no longer need to be included in Title V permit applications. "Trivial" emission units and /or activities will not be included in the Title V permit. Please update your attachment "List of Proposed Exempt Activities" and provide sufficient information to classify the emissions units and/or activities into two new categories - those that are "exempt" and those that are "unregulated".

To properly update the "List of Proposed Exempt Activities" you need to consider the requirements of Rule 62-213.430(6), F.A.C. If the answer to any of the following questions is yes, an emissions unit and/or activity cannot be "exempt".

- (1) Does any unit or activity have a unit-specific applicable requirement?
- (2) Does any unit or activity emit, or have the potential to emit, equal to or greater than:
 - 1,000 pounds/year of any hazardous air pollutant (HAP);
 - 2,500 pounds/year of total HAPs; and/or
 - 5 TPY of any other regulated air pollutant, i.e, volatile organic compound (VOC)?

77. The National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) apply if you own or operate a solvent cleaning machine that uses a solvent that contains 5 percent or more by weight of any one of any combination of the following halogenated solvents: Carbon Tetrachloride; Chloroform; Perchloroethylene; 1,1,1-Trichloroethane; Trichloroethylene; or Methylene chloride. a) Are any of these six solvents being used at this facility? b) If yes, what is the amount of solvent (in gallons) used annually at parts-cleaning and degreasing stations? c) Are buckets, pails, and beakers with capacities greater than 7.6 liters (2 gallons) being used?

78. Do the storage tanks listed emit VOCs or HAPs?

79. Do the vehicle refueling operations dispense more than 20,000 gallons/month of gasoline? If so, Stage I vapor control applies.

80. Which belt conveyors are being referred to in this list?

Miscellaneous

81. Please submit a copy of all the approved emissions Alternate Sampling Procedures (ASPs) and all approved fuel sampling and/or washing procedures that are currently being utilized at the Big Bend Station.

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C., requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

Professional Engineer (P.E.) Certification Statement: Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, your response above should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P.E. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C. A copy of your response should be sent to Mr. Richard Kirby at the Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 North 21 Street, Tampa, Florida, 33605.

For Information Purposes (no response required)

1. The visible emissions subtype codes VE, VES are no longer used. The visible emissions subtype code is now simply the letters "VE" followed immediately by two digits representing the opacity standard; for example, VE20 is the appropriate visible emissions subtype code for an opacity limitation of 20%. There is no VE100 subtype for periods of excess emissions because best operational practices, including shutdown, should be utilized to prevent an hour's worth of 100% percent opacity.
2. Your Title V application requested that a petcoke/coal blend be burned in Steam Generator Units No. 1 and No.2. Approval to burn this fuel must be obtained through preconstruction review (i.e., applying for and receiving an air construction permit). Subsequently, the Title V permit application or permit revision application can be submitted.

The Department must receive a response from you (the applicant) within 90 days of receipt of this letter, unless you request additional time as described in Rule 62-213.420 (1)(b)6., F.A.C. Failure to submit corrected or supplementary information within 90 days, or such additional time as requested and granted, shall render the application incomplete.

If you should have any questions, please call Ms. Cindy L. Phillips, P.E., or me at (904)488-1344. If you prefer, you may also send email to Ms. Phillips at the following address: PHILLIPS_C@DEP.STATE.FL.US.

Sincerely,

Mr. Stanley Martin
January 1997
Page 14

John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/clp

Enclosures

cc: Janice Taylor, TEC
Thomas W. Davis, P.E., ECT
Richard Kirby, P.E., EPCHC
Jerry Kissel, P.E., SWD
Thomas W. Reese, Esq.