

### Department of Environmental Protection

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

David B. Struhs Secretary

### P.E. Certification Statement

Permittee:

Tampa Electric Company F.J. Gannon Station

Revised DRAFT Permit No.: 0570040-002-AV

Facility ID No.: 0570040

Project type: Initial Title V Air Operation Permit

I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapter 5, 24 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the interposal logistic of my area of expertise (including but not limited to the electrical, mechanical strategies).

Scott M. Sheplak, P.Z.

Registration Number: 0048866

Permitting Authority:

Department of Environmental Protection Bureau of Air Regulation 111 South Magnolia Drive, Suite 4 Tallahassee, Florida 32301

Telephone: 850/921-9532 Fax: 850/922-6979

#### STATEMENT OF BASIS

Tampa Electric Company F. J. Gannon Station Page 1 of 3

Initial Title V Air Operation Permit **DRAFT Permit No.:** 0570040-002-AV

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.

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 1317 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.

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 matter 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 matter 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.

Unit No. 4 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 matter 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.

#### STATEMENT OF BASIS

Tampa Electric Company F. J. Gannon Station Page 2 of 3

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 matter 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 matter 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.

The six boilers demonstrate compliance with the sulfur dioxide standard by the use of CEMS. COMS are used for periodic monitoring purposes.

Unit No. 7 is a simple cycle combustion turbine and is designated as Combustion Turbine Unit No. 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.

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.

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 reinjected 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 matter emissions generated during the loading of the silo are controlled by an 830 ACFM Mikropul Corporation Model 365-10-30 Baghouse.

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

#### STATEMENT OF BASIS

Tampa Electric Company F. J. Gannon Station Page 3 of 3

"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 matter emissions generated during the filling of the silo are controlled by an 11,300 ACFM United States Filter Corporation Mikro-Pulsaire Model 1F3-24 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 matter 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.

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 matter 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: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

Also included in this permit are miscellaneous insignificant 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).

#### PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION Title V Revised DRAFT Permit No.: 0570040-002-AV

F. J. Gannon 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 F. J. Gannon Station located at Port Sutton Road, Tampa, Hillsborough County. This permit incorporates the Phase II NO<sub>x</sub> standards into the Title IV Acid Rain Part pursuant to Rule 62-214.360(6), Florida Administrative Code (F.A.C.). The applicant's name and address are: Tampa Electric Company, P. O. Box 111, Tampa, Florida 33601-0111.

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 Revised 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 Revised 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 Title V Revised DRAFT Permit, the permitting authority shall issue another Title V Revised DRAFT Permit and require, if applicable, another Public Notice.

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 of the Florida Statutes (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: 850/488-9730; Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the 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 28-106.205 of the Florida Administrative Code (F.A.C.).

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination;

- (c) A statement of how and when the petitioner received notice of the agency action or proposed action:
  - (d) A statement of all disputed issues of material fact. If there are none, the petition must so state;
- (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief;
- (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and,
- (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

Mediation is not available for this proceeding.

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: U.S. EPA, 401 M Street, S.W., 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: 850/488-0114

Fax: 850/922-6979

Affected District/Local Program:
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 Title V Revised 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 850/921-9532, for additional information.



## Barbara / Tile Department of **Environmental Protection**

leb Bush Governor

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

David B. Struhs Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 7, 1999

Ms. Karen A. Sheffield, P.E. General Manager Tampa Electric Company P. O. Box 111 Tampa, Florida 33601-0111

Re:

Revised DRAFT Title V Permit No.: 0570040-002-AV

F. J. Gannon Station

Dear Ms. Sheffield:

The Revised DRAFT Title V Air Operation Permit for the F. J. Gannon Station located at Port Sutton Road, Tampa, Hillsborough County, was clerked on September 30, 1999. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was included in this package.

The Department will publish the "PUBLIC NOTICE OF INTENT TO ISSIJE TITLE V. AIR OPERATION PERMIT" as soon as possible. This issue is important in order for you to receive your revised Title IV Acid Rain Part by January 1, 2000, for the inclusion of the Phase II NO<sub>x</sub> limitations pursuant to Rule 62-214.360(6), Florida Administrative Code.

If you have any questions, please contact Scott M. Sheplak, P.E., at 850/921-9532.

Sincerely,

Bureau of Air Regulation

CHF/sms/k

cc: Gregory Nelson, P.E., TEC Jamie Hunter, TEC Thomas W. Davis, P.E., ECT Bill Thomas, P.E., SWD Richard Kirby, P.E., EPCHC

Gregg Worley, U.S. EPA Thomas W. Reese, Esquire

Gail Kamaras, Legal Environmental Assistance Foundation

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

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### Department of **Environmental Protection**

Jeb Bush Governor

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

David B. Struhs Secretary

September 27, 1999

Ms. Karen A. Sheffield, P.E. General Manager Tampa Electric Company P. O. Box 111 Tampa, Florida 33601-0111

Revised DRAFT Title V Permit No.: 0570040-002-AV

F. J. Gannon Station

Dear Ms. Sheffield:

One copy of the Revised DRAFT Title V Air Operation Permit for the F. J. Gannon Station located at Port Sutton Road, Tampa, Hillsborough County, is enclosed. The permitting authority's "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" must be published as soon as possible. This issue is important in order for you to receive your revised Title IV Acid Rain Part by January 1, 2000, for the inclusion of the Phase II NO<sub>x</sub> limitations pursuant to Rule 62-214.360(6), Florida Administrative Code. 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 him at 850/921-9532.

Sincerely,

K Bruce The C. H. Fancy, P.E.

Bureau of Air Regulation

CHF/sms/k

**Enclosures** 

cc: Mr. Gregg Worley, U.S. EPA, Region 4 (INTERNET E-mail Memorandum) Ms. Elizabeth Bartlett, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

US Postal Service Receipt for Certified Mail

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SENDER:  © Complete items 1 and/or 2 for additional services.  © Complete items 3, 44, and 4b.  © Print your name and address on the raveres of this form so that we can return this card to you.  © Attach this form to the front of the mallplece, or on the back if space does not permit.  © Write 'Return Receipt Requested' on the mailplace below the article number.	delivered.  3. Article Addressed to:  Ms. Gail Kamaras. Director	ance	1114 E. Thomasville Road Tallahassee, Florida 32303		5. Received By: (Print Name)	6. Signatura: (Addressage or Roam)	PS Form 3811, December 1994	SENDER:  © Complete items 1 and/or 2 for additional services.  © Complete items 3. 4a, and 4b.  © Complete items 3. 4a, and 4b.	om to the front of the mallplece, or on the back if n Recaipt Requested* on the mallplece below the Recaipt will show to whom the article was deliver	Delivered.

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Tampa, Florida P.O. Box 111

5. Received By: (Print Name)

6. Signature: (Addressee

PS Form 3811, December 1994

102595-97-8-0179 Domestic Return Receipt

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Tampa Electric Company

General Manager

In the Matter of an Application for Permit by: Tampa Electric Company P. O. Box 111 Tampa, Florida 33601-0111

Revised DRAFT Permit No.: 0570040-002-AV F. J. Gannon 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 (copy of Revised DRAFT Permit enclosed) 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 F. J. Gannon Station located at Port Sutton Road, Tampa, Hillsborough County. The applicant submitted the Phase I/II NO<sub>x</sub> Acid Rain Compliance Plan on December 29, 1997. This permit incorporates the Phase I/II NO<sub>x</sub> standards into the Title IV Acid Rain Part pursuant to Rule 62-214.360(6), Florida Administrative Code (F.A.C.).

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 403.087, F.S., and Rules 62-110.106 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: 850/488-1344; Fax: 850/922-6979), 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 62-110.106, F.A.C.

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The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the attached Title V Revised 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 the "<u>PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT</u>." 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 Title V Revised DRAFT Permit, the permitting authority shall issue another Title V Revised DRAFT Permit and require, if applicable, another Public Notice.

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: 850/488-9730; Fax: 850/487-4938). Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
- (c) A statement of how and when each petitioner received notice of the agency action or proposed action;

Page 3 of 5

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

- (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief;
- (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and,
- (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

Mediation will not be available in this proceeding.

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.

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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: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

o. m. ranc

Chief

Bureau of Air Regulation

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#### **CERTIFICATE OF SERVICE**

Karen Sheffield, P.E.

Gail Kamaras, Legal Environmental Assistance Foundation

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 and the Revised DRAFT permit) were sent by U.S. mail on the same date to the person(s) listed:

Gregory Nelson, P.E., TEC Jamie Hunter, TEC Thomas W. Davis, P.E., ECT Bill Thomas, SWD Richard Kirby, EPCHC Thomas W. Reese, Esquire

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.

(Clerk)

(Date)

Tampa Electric Company F. J. Gannon Station Facility ID No.: 0570040 Hillsborough County

Initial Title V Air Operation Permit Revised 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 Fax: 850/922-6979

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

Fax: 813/272-5605

# Initial Title V Air Operation Permit Revised DRAFT Permit No.: 0570040-002-AV

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### Department of Environmental Protection

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

David B. Struhs Secretary

Permittee:

Tampa Electric Company P.O. Box 111 Tampa, Florida 33601-0111 Revised 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 I-1, List of Insignificant Exempt Emissions Units and/or Activities APPENDIX TV-3, TITLE V CONDITIONS (version dated 04/30/99)
Appendix SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)
Phase II SO<sub>2</sub> Acid Rain Application/Compliance Plan received December 26, 1995
Phase II NOx Compliance Plan received December 29, 1997

Effective Date: January 1, 2000

Renewal Application Due Date: July 5, 2004

Expiration Date: December 31, 2004

Howard L. Rhodes, Director Division of Air Resources Management

HLR/sms/k

### 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 1317 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 insignificant 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.

<u>E.U.</u>	
ID No.	Brief Description
-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 SO<sub>2</sub> Acid Rain Permit dated July 14, 1994
Additional Information Request dated November 19, 1996
Additional Information Response received February 21, 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
Letter dated August 26, 1997, conveying the Title V DRAFT Permit package
Title V DRAFT permit Public Notice received on September 17, 1997
Letter dated xx/xx/xx, changing the Designated Representative

### Section II. Facility-wide Conditions.

Revised DRAFT Permit No.: 0570040-002-AV

#### The following conditions apply facility-wide:

- 1. APPENDIX TV-3, TITLE V CONDITIONS, is a part of this permit. {Permitting note: APPENDIX TV-3, 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).
- a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable; and
- b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C. [40 CFR 68]
- 5. <u>Insignficant Emissions Units and/or Activities</u>. Appendix I-I, List of Insignificant 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.]

{Permitting Note: No vapor emission control devices or systems are deemed necessary nor ordered by the Department as of the issuance date of this permit.}

- 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.

{Note: This condition implements the requirements of Rules 62-296.320(4)(c)1., 3., & 4. F.A.C. (condition 58. of APPENDIX TV-3, TITLE V CONDITIONS.}

[Rule 62-296.320(4)(c)2., F.A.C.; Proposed by applicant in the initial Title V permit application received June 14, 1996]

{Permitting Note: Condition No. 7 presents the reasonable precautions to be implemented in accordance with Rule 62-296.320(4)(c), F.A.C., in lieu of the requirements of Condition No. 58 of Appendix TV-3.}

- 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 requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9055, Fax: 404/562-9163

E. U.

Revised DRAFT Permit No.: 0570040-002-AV

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Section III. Emissions Units.

#### Subsection A. This section addresses the following emissions units.

ID No.	Brief Description
-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 matter 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 matter 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:

Unit No.	MMBtu/hr Heat Input	Fuel Type
1 and 2	1257	Coal
		New No. 2 fuel oil
3	1599	Coal
		New No. 2 fuel oil

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.} [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:

Unit No.	Required Stack Testing	<b>Annual Date</b>	Required frequency
1	Particulate Matter (non-sootblowing)	19-Feb.	Annually*
	Particulate Matter (soot-blowing)		
	Visible Emissions (non-sootblowing)		
	Visible Emissions (soot-blowing)		
	Sulfur Dioxide		
2	Particulate Matter (non-sootblowing)	28-Aug.	Annually*
	Particulate Matter (soot-blowing)		
	Visible Emissions (non-sootblowing)		
	Visible Emissions (soot-blowing)		
	Sulfur Dioxide		
3	Particulate Matter (non-sootblowing)	13-Nov.	Annually*
	Particulate Matter (soot-blowing)		
	Visible Emissions (non-sootblowing)		
	Visible Emissions (soot-blowing)		
	Sulfur Dioxide		

<sup>\*</sup>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 Matter Control:
  - A. Process System Performance Parameters:
    - 1. Source Designator: Unit Nos. 1, 2 and 3
    - 2. Design Fuel Consumption Rate at Maximum Continuous Rating:

<u>Unit</u>	Tons/hr (coal).
1	50
2	51
3	65

3. Operating Pressure:

<u>Unit</u>	Psi.
1	1575
2	1580
3	1980

- 4. Operating Temperature: 1000 °F
- 5. Maximum Design Steam Capacity:

<u>Unit</u>	Pounds/hr
1	910,000
2	950,000
3	1,160,000

- B. Particulate matter Control Equipment Data:
  - 1. Control Equipment Designator: Electrostatic Precipitator
  - 2. Electrostatic Precipitator Manufacturer: Combustion Engineering
  - 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. H<sub>2</sub>O (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.

<u>E.U.</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 matter 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 onspecification 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>

MMBtu/hr Heat Input

Fuel Type

Coal

-004

1876

New No. 2 fuel oil

On-specification used oil

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}
[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 SO<sub>2</sub> per million Btu heat input. [Rule 1-3.63(c), Rules of the EPCHC]

#### **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:

#### Unit No. Required Stack Testing

**Annual Date** 

Required frequency

4 Particulate Matter (non-sootblowing)
Particulate Matter (soot-blowing)

9-May

Annually\*

Particulate Matter (soot-blowing) Visible Emissions (non-sootblowing) Visible Emissions (soot-blowing)

Sulfur Dioxide

[Rule 62-297.310., F.A.C.]

#### Monitoring of Operations

- **B.5.** Operation and Maintenance for Particulate Matter 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 matter 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

<sup>\*</sup>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.

### Tampa Electric Company F.J. Gannon Station

Revised DRAFT Permit No.: 0570040-002-AV

5. Primary Current: 172 amps

6. Secondary Voltage: 56.6 kilovolts7. Secondary Current: 1,000 milliamps

8. Design Efficiency: 99.05%

9. Pressure Drop: 1.58 in. H<sub>2</sub>O (avg)

10. Rapper Frequency: 1/1.5 min. - 1/3.5 min (avg)

11. Rapper Duration: Impact

12. Gas Temperature:  $250 \pm 55^{\circ}$  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

Tampa Electric Company F.J. Gannon Station

Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash point	100 degrees F minimum

- b. <u>Quantity Limitation</u>: 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. <u>PCB Limitation</u>: 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. Onspecification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.
- e. <u>Testing Requirements</u>: For each batch of used oil to be burned, the owner or operator must be able to demonstrate that the used oil qualifies as on-specification used oil and that the PCB content is less than 50 ppm.

The requirements of this demonstration are governed by the following federal regulations:

Analysis of used oil fuel. A generator, transporter, processor/ re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of Sec. 279.11 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.

[40 CFR 279.72(a)]

Testing of used oil fuel. Used oil to be burned for energy recovery is presumed to contain quantifiable levels (2 ppm) of PCB unless the marketer obtains analyses (testing) or other information that the used oil fuel does not contain quantifiable levels of PCBs.

- (i) The person who first claims that a used oil fuel does not contain quantifiable level (2 ppm) PCB must obtain analyses or other information to support that claim.
- (ii) Testing to determine the PCB concentration in used oil may be conducted on individual samples, or in accordance with the testing procedures described in Sec. 761.60(g)(2). However, for purposes of this part, if any PCBs at a concentration of 50 ppm or greater have been added to the container or equipment, then the total container contents must be considered as having a PCB concentration of 50 ppm or greater for purposes of complying with the disposal requirements of this part.
- (iii) Other information documenting that the used oil fuel does not contain quantifiable levels (2 ppm) of PCBs may consist of either personal, special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the oil contains no detectable PCBs.

[40 CFR 761.20(e)(2)]

When testing is required, the owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:

Arsenic, cadmium, chromium, lead, total halogens, flash point and PCBs. 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) Other information, besides testing, used to make a claim that the used oil meets the requirements of on-specification used oil or that the used oil contains less than 50 ppm of PCBs.
- 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 onspecification 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.

<u>E.U.</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 matter 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 matter 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:

Unit No.	MMBtu/hr Heat Input	Fuel Type
-005	2284	Coal
		New No. 2 Fuel Oil
-006	3798	Coal
		New No. 2 Fuel Oil

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.} [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.

{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:

Unit No.	Required Stack Testing A	nnual Date Requ	uired frequency
5	Particulate Matter (non-sootblowing)	) 15-April	Annually*
	Particulate Matter (soot-blowing)		
	Visible Emissions (non-sootblowing)	ı	
	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		

<sup>\*</sup>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 Matter 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>	Tons/hr. (coal)
5	93.4
6	151.4

3. Operating Pressure:

Unit	Psi.
5	2,250
6	2,600

- 4. Operating Temperature: 1000 °F
- 5. Maximum Design Steam Capacity:

<u>Unit</u>	Pounds/hr
5	1,660,000
6	2,700,000

B. Particulate matter Control Equipment Data:

- Control Equipment Designator: Two Electrostatic Precipitators Unit No. 5; One Electrostatic Precipitator Unit No. 6
- Electrostatic Precipitator Manufacturer: Research Cottrell Inc. 2.
- Model Numbers: 3.

Unit No. 5: G.O. 3129; G.O. 2791

Unit No. 6: G.O. 3118

Design Flow Rate:

Unit **ACFM** 

> 5 820,000; 700,000

6 1,350,000

Primary Voltage:

<u>Unit</u> Volts

> 5 400; 400

430-480 6

- **Primary Current:**

Unit

<u>Amps</u>

5

240; 195

- 241
- 6

Secondary Voltage: Unit

Volts

- 5 53.5; 64.5
- 6 53.5
- Secondary Current:

Unit milliamps

5 1,500; 1,000

6 1,500

Design Efficiency:

Percent Unit

> 5 99.78; 98.5

6 98.5

- 10. Pressure Drop: 0.5 in. H<sub>2</sub>O (avg)
- 11. Static Pressure: +15 in. H<sub>2</sub>O (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.

Tampa Electric Company F.J. Gannon Station

#### Subsection D. This section addresses the following emissions unit.

#### E.U.

## ID No. Brief Description -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

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.} [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.** <u>Visible Emissions</u>. 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.** <u>Visible Emissions.</u> 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) <u>Special Compliance Tests</u>. 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.** <u>Visible Emissions Testing Annual</u>. By this permit, annual emissions compliance testing for visible emissions is not required for this emissions unit 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 matter control media and other yard activity parameters are listed below:

Source Designator	Particulate matter Control Method	Efficiency Rating at Design Capacity	Maximum Design Material Handling Rate (TPH)
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
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

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Conveyors G1/G2 to Hammermill Crushers	Enclosure	70%	1600
Hammermill Crushers to Conveyer 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. <u>Permitted Capacity</u>. 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 62-296.711(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 matter 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 matter 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]

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#### Subsection F. This section addresses the following emissions unit.

#### **E.U.**

#### ID No. Brief Description

-009 Unit 4 Economizer Ash Silo with Baghouse

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 matter 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. <u>Permitted Capacity.</u> 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.** <u>Visible Emission.</u> 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:

Pollutantlbs./hr.Tons/yr.StandardParticulate Matter0.130.560.03 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.}

- Revised DRAFT Permit No.: 0570040-002-AV
- **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; and.
  - 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.

[Rule 62-297.310(7)(a)4., F.A.C.]

#### **Monitoring of Operations**

F.5. Operation and Maintenance Plan for Particulate Matter 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. H<sub>2</sub>O 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.

<u>E.U.</u>	
ID No.	Brief Description
-010	Fly Ash Silo (No. 1) with Baghouse
-012	Pugmill and Truck Loading

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 matter 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. <u>Visible Emission</u>. Visible emissions shall not exceed 5% opacity. [Rule 62-296.711(2)(a), F.A.C.]
- G.3. <u>Particulate Matter.</u> 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.}

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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 matter 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.

Tampa Electric Company F.J. Gannon Station

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 matter 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. <u>Permitted Capacity.</u> 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.** <u>Visible Emission.</u> 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 matter 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.

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Subsection I. This section addresses the following emissions units.

**E.U.** ID No. Brief Description

-013 thru-018 Unit Nos. 1-6 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 matter 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 exempt from 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 matter 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. <u>Visible Emissions</u>. 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.]

#### **Monitoring of Operations**

- I.5. Operation and Maintenance Plan for Particulate matter 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.]

I.6. These emissions units are also subject to conditions contained in Subsection K. Common Conditions.

#### Subsection J. Common Conditions.

**E.U.** ID No. Brief Description

-001 thru -006 Unit Nos. 1-6 Fossil Fuel-Fired Steam Generator

The following conditions apply to the emissions units listed above:

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

J.1. <u>Hours of Operation</u>. 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}

{Permitting Note: In accordance with the Acid Rain Phase II requirements, the following continuous monitors are installed on these units: SO<sub>2</sub>, NO<sub>X</sub>, CO<sub>2</sub> and stack gas flow.}

- J.2. <u>Particulate Matter.</u> Particulate matter emissions from each unit 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 from each unit shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. 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. <u>Sulfur Dioxide</u>. Sulfur dioxide emissions from each unit shall not exceed 1.35 pounds of per million Btu heat input on a 24-hour average. [Rule 62-296.405(1)(c)2.a., F.A.C. and Rules 62-204.220(1) & 62-204.240(1), 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. <u>Visible Emissions</u>. Visible emissions from each unit 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. <u>Visible Emissions - Soot Blowing and Load Change.</u> Visible emissions from each unit shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [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 matter 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 62-296.405(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. Compliance with the SO<sub>2</sub> emission standards specified in condition J.4. shall be demonstrated using a continuous emissions monitor.

[Rules 62-296.405(1)(e)3., F.A.C.]

J.12.a. Sulfur Dioxide CEMS. Continuous SO<sub>2</sub> emission monitoring 24-hour averages are required to demonstrate compliance with the standards of the Department (see Specific Condition J.4.). A valid 24-hour average shall consist of no less than 18 hours of valid data capture per calendar day. In the event that valid data capture is interrupted, the permittee shall initiate as-fired fuel sampling to demonstrate compliance with the SO<sub>2</sub> emissions standard. The as-fired fuel sampling shall be initiated no later than 36 hours after the permittee has verified the problem or no later than 36 hours after the end of the affected calendar day. As-fired fuel sampling shall continue until such time as valid data capture is restored. In lieu of as-fired fuel sampling, the permittee may elect to demonstrate SO<sub>2</sub> emissions compliance by the temporary use of a spare SO<sub>2</sub> emissions monitor. The spare, previously calibrated, SO<sub>2</sub> emissions monitor must be installed and collecting data in the same time frame as required above for as-fired fuel sampling. A quality control (QC) program must be maintained. At a minimum, the QC program must include written procedures which shall describe in detail complete, step-by-step procedures and operations for each of the following activities:

- 1. Calibration of CEMS.
- 2. Calibration Drift (CD) determination and adjustment of CEMS.
- 3. Preventative maintenance of CEMS (including spare parts inventory).
- 4. Data recording, calculations and reporting.
- 5. Accuracy audit procedures including sampling and analysis methods.
- 6. Program of corrective action for malfunctioning CEMS.

[Rules 62-213.440, 62-204.800(7)(e)5. and 62-296.405(1)(f)1.b., F.A.C]

- J.12.b. Continuous Monitor Performance Specifications. If continuous monitoring systems are required by rule or are elected by the permittee to be used for demonstrating compliance with the standards of the Department, they must be installed, maintained and calibrated in accordance with the EPA performance specifications listed below. These Performance Specifications are contained in 40 CFR 60, Appendix B, and are adopted by reference in Rule 62-204.800, F.A.C.
  - (1) Performance Specification 1--Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources.
  - (2) Performance Specification 2--Specifications and Test Procedures for SO<sub>2</sub> Continuous Emission Monitoring Systems in Stationary Sources.
  - (3) Performance Specification 3--Specifications and Test Procedures for CO<sub>2</sub> Continuous Emission Monitoring Systems in Stationary Sources.

[Rule 62-297.520, F.A.C.]

- J.12.c. Fuel Sampling and Analysis. The following fuel sampling and analysis protocol shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the sulfur dioxide standard in the event that the SO<sub>2</sub> continuous emissions monitor is not able to capture valid data:
  - 1) Determine and record the as-fired fuel sulfur content, percent by weight, for coal using ASTM D2013-72 and either ASTM D3177-75 or ASTM D4239-85, or the latest edition, to analyze a representative sample of the blended as-fired pulverized coal.
  - Determine and record the calorific heat value in Btu per pound of the as-fired pulverized coal using ASTM D2013-72 and either ASTM D2015-77 or D3286-(latest version), or the latest edition.

- 3) Record daily the amount of coal fired, the heating value of coal fired, and the percent sulfur content, by weight, of coal fired.
- 4) Utilize the information in 1), 2), and 3), above, to calculate the SO<sub>2</sub> emission rate to ensure compliance at all times.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, 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. <u>Visible Emissions</u>. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. In lieu of Method 9 testing, a transmissometer utilizing a 6-minute block average for opacity measurement may be used, provided such transmissometer is installed, certified, calibrated, operated and maintained in accordance with the provisions of 40 CFR Part 75.

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

- J.15. <u>DEP Method 9</u>. 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

Tampa Electric Company F.J. Gannon Station

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. <u>Calculation of Emission Rate</u>. 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) <u>Calibration of Sampling Equipment</u>. 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),.C.]
- J.21. <u>Frequency of Compliance Tests</u>. 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) <u>Special Compliance Tests</u>. 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) <u>Required Equipment</u>. 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. <u>Continuous Monitors</u>. The permittee shall calibrate, operate and maintain continuous emissions monitoring systems (CEMS) for monitoring opacity, SO<sub>2</sub> and CO<sub>2</sub>. [Rule 62-213.440, F.A.C. and Rule 62-296.405(1)(f)1., F.A.C.]

{Permitting Note: NO<sub>X</sub> CEMS are also operated and maintained on these units in accordance with the Acid Rain requirements.}

#### 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  $SO_2$  A quarterly report summarizing the information necessary to determine compliance with the  $SO_2$  standards for each unit and the facility shall be submitted within 45 days to the Environmental Protection Commission of Hillsborough County following a calander 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.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the

test results properly computed. 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.30. <u>Malfunction Reporting.</u> 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.31. The permittee shall install flow meters to monitor the new No. 2 fuel oil usage. [Rule 62-4.070(3), F.A.C.]
- J.32. 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.33. <u>Slag Tanks</u>. 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.34. <u>Boiler Cleaning Waste</u>. 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. <u>Testing Requirements</u>: 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.

	Brief Description
-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 matter 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 matter emission standard is not being met, the Department may require that compliance with the particulate matter 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.

# Brief Description -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 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 (SO<sub>2</sub>) allowance allocations and nitrogen oxide (NOx) requirements for each Acid Rain unit is as follows:

E.U. ID No.	EPA ID	Year	2000	2001	2002	2003	2004
-001	GB01	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	3842*	3842*	3842*	3842*	3842*
		NOx limit	**	**	**	**	**
-002	GB02	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	4425*	4425*	4425*	4425*	4425*
		NOx limit	**	**	**	**	**

E.U.			l.				
ID No.	EPA ID	Year	2000	2001	2002	2003	2004
-003	GB03	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	5664*	5664*	5664*	5664*	5664*
	GN03	NOx limit**	Pursuant to 40 CFR 76, the Florida Department of Environmental Protection approves a NO <sub>X</sub> standard emission limitation compliance plan for Unit 3. The compliance plan is effective for calendar year 2000 through calendar year 2004. Under the compliance plan, this unit's annual average NO <sub>X</sub> emission rate for each year, determined in accordance with 40 CFR 75, shall not exceed the applicable emission limitation, under 40 CFR 76.6(a)(2), of 0.86 lb/mmBtu for cyclone boilers.				
			In addition, this unit shall comply with all other applicable requirements of 40 CFR 76, including the duty to reapply for a NO <sub>X</sub> compliance plan and requirements covering excess emissions.				
-004	GB04	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	6223*	6223*	6223*	6223*	6223*
	GN04	NOx limit**	Environme emission lin compliance through call plan, this under 40 Choilers.	this unit sharequirements	on approves apliance placetive for cal 2004. Unde average NC accordance olicable emi 2), of 0.86 l	s a $NO_X$ star n for Unit 4 endar year r the comple $O_X$ emission with 40 C ssion limita b/mmBtu for	ndard The 2000 iance rate for FR 75, tion, or cyclone
			duty to rea	pply for a Notes to covering e	O <sub>X</sub> complia	nce plan and	

E.U.			<u> </u>		<u> </u>	<u> </u>	
ID No.	EPA ID	Year	2000	2001	2002	2003	2004
-005	GB05	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	6537*	6537*	6537*	6537*	6537*
	GN05	NOx limit**	Pursuant to 40 CFR 76, the Florida Department of Environmental Protection approves a NO <sub>x</sub> standard emission limitation compliance plan for Unit 5. The compliance plan is effective for calendar year 2000 through calendar year 2004. Under the compliance plan, this unit's annual average NO <sub>x</sub> emission rate for each year, determined in accordance with 40 CFR 75, shall not exceed the applicable emission limitation, under 40 CFR 76.6(a)(3), of 0.84 lb/mmBtu for wet bottom boilers.  In addition, this unit shall comply with all other applicable requirements of 40 CFR 76, including the duty to reapply for a NO <sub>x</sub> compliance plan and requirements covering excess emissions.				
-006	GB06	SO2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	10081*	10081*	10081*	10081*	10081*
	GN06	NOx limit**	Pursuant to 40 CFR 76, the Florida Department of Environmental Protection approves a NO <sub>X</sub> standard emission limitation compliance plan for Unit 6. The compliance plan is effective for calendar year 2000 through calendar year 2004. Under the compliance plan, this unit's annual average NO <sub>X</sub> emission rate for each year, determined in accordance with 40 CFR 75, shall not exceed the applicable emission limitation, under 40 CFR 76.6(a)(3), of 0.84 lb/mmBtu for wet bottom boilers.  In addition, this unit shall comply with all other applicable requirements of 40 CFR 76, including the duty to reapply for a NO <sub>X</sub> compliance plan and requirements covering excess emissions.				

<sup>\*</sup>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.

<sup>\*\*</sup> Based on the Phase II NOx Compliance Plan received December 29, 1997.

- 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. <u>Fast-Track Revisions of Acid Rain Parts</u>. 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, F.A.C.

[Rules 62-213.413 and 62-214.370(4), F.A.C.]

- A.5. 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, F.A.C. [40 CFR 70.6(a)(4)(i); and, Rule 62-213.440(1)(c)1., F.A.C.]
- A.6. Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.

[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

- A.7. 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-3, TITLE V CONDITIONS} [Rule 62-214.420(11), F.A.C.]
- A.8. Comments, notes, and justifications:
- a. The designated representative was changed by letter dated June 27, 1997.
- b. The designated representative was changed by letter dated xx/xx/xx.

### Appendix I-1, List of Insignificant Emissions Units and/or Activities.

Tampa Electric Company Revised DRAFT Permit No.: 0570040-002-AV

F. J. Gannon Station Facility ID No.: 0570040

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical 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 the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62.210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant 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

# Appendix H-1, Permit History/ID Number Changes

Tampa Electric Company

F. J. Gannon

Revised DRAFT Permit No.: 0570040-002-AV

**Facility ID No.:** 0570040

	mit History (for tracking purposes):					
E.U						
<u>ID 1</u>	No Description	Permit No.	<u>Issue</u>	<b>Expiration</b>	Extended Date <sup>1, 2</sup>	Revised Date(s)
		•	Date	Date		
-00	Unit No. 1-Fossil Fuel-Fired Steam Generator	AO29-204434	1/31/92	1/31/97		10/11/94
		AC29-41943	8/7/81	3/15/87		
-002	Unit No. 2-Fossil Fuel-Fired Steam Generator	AO29-189206	2/7/91	2/6/96	8/14/96	
		AC29-41942	8/7/81	3/15/86		
-000	Unit No. 3-Fossil Fuel-Fired Steam Generator	AO29-172179	4/26/90	4/19/95	8/14/96	10/11/94
		AC29-41941	8/7/81	1/15/85		
-004	Unit No. 4-Fossil Fuel-Fired Steam Generator	AO29-255208	12/2/94	10/14/99		
		AC29-41940	8/7/81			
<b>-</b> 00:	Unit No. 5-Fossil Fuel-Fired Steam Generator	AO29-203511	1/1/92	1/1/97		
-000	Unit No. 6-Fossil Fuel-Fired Steam Generator	AO29-203512	2/15/92	2/15/97		
<b>-</b> 00′	Combustion Turbine	AO29-252615	8/31/94	8/31/99		
-008	B Coal Yard	AO29-216480	4/23/93	9/12/97		
		AC29-61276	4/12/83	12/31/84		
-009	Unit 4 Economizer Ash Silo with Baghouse	AO29-218858	8/29/89	11/6/97		
-010	Units 5-6 Fly Ash Silo (No.1) with Baghouse	AO29-250137	7/20/94	7/12/99		2/6/95
-01	Units 1-4 Fly Ash Silo (No. 2) with Baghouse	AO29-250140	7/20/94	7/12/99		2/6/95
-012	Pug Mill & Truck Loading	AO29-250137	7/20/94	7/12/99		2/6/95
-013	Unit 1 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-014	Unit 2 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-01:	Unit 3 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-010	Unit 4 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
<b>-</b> 01′	Unit 5 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-019	Unit 6 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95

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**Facility ID No.:** 0570040

## (if applicable) ID Number Changes (for tracking purposes):

From: Facility ID No.: 40HIL290040

To: Facility ID No.: 0570040

#### Notes:

- 1 AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.
- 2 AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.

{Rule 62-213.420(1)(b)2., F.A.C., allows Title V Sources to operate under existing valid permits that were in effect at the time of application until the Title V permit becomes effective}

# TABLE 297.310-1 CALIBRATION SCHEDULE

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple ,	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer .	+/-0.001" mean of at least three readings Max. deviation between readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, When 5% change observed, Annually 2. One Point: Semiannually 3. Check after each test series	Spirometer or calibrated wet test or dry gas test meter  Comparison check	2% 5%