Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

PROPOSED Permit Electronic Posting Courtesy Notification

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

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

The electronic version of the PROPOSED permit was posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review on July 26, 2000.

USEPA's review period ends on the 45th day after the permit posting date. Day 45 is September 9, 2000. If an objection (veto) is received from USEPA, the permitting authority will provide a copy of the objection to the applicant.

Provided an objection is not received from USEPA, the PROPOSED permit will become a FINAL permit by operation of law on the 55th day after the permit posting date. Day 55 is September 18, 2000.

The web site address is http://www2.dep.state.fl.us/air.

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

July 21, 2000

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

Re: PROPOSED Title V Permit No.: 0570040-002-AV
F. J. Gannon Station

Dear Ms. Sheffield:

One copy of the "PROPOSED PERMIT DETERMINATION" for the F. J. Gannon Station located at Port Sutton Road, Tampa, Hillsborough County, is enclosed. This letter is only a courtesy to inform you that the DRAFT permit has become a PROPOSED permit.

An electronic version of this determination has been posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is *http://www.dep.state.fl.us/air*.

Pursuant to 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit is made by the USEPA within 45 days, the PROPOSED permit will become a FINAL permit no later than 55 days after the date on which the PROPOSED permit was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED permit, the FINAL permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

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

Sincerely,

Scott M. Sheplak

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

CHF/sms

Enclosures

copy furnished to:
Karen Sheffield, R.O.
Gregory M. Nelson, D.R.
J. James Hunter, TEC
Thomas W. Reese, Esquire
Gail Kamaras, Legal Environmental Assistance Foundation
Thomas W. Davis, ECT
Bill Thomas, SWD
Jerry Campbell, EPCHC
USEPA, Region 4 (INTERNET E-mail Memorandum)

7/31/00 cc: Scott Sheplak
Reading File

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990234-001-AV

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" for the F. J. Gannon Station located at Port Sutton Road, Tampa, Hillsborough County was clerked on June 6, 2000. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was published on June 7, 2000, in the Tampa Tribune. The DRAFT Title V Air Operation Permit was available for public inspection at the Southwest District and the Environmental Protection Commission of Hillsborough County (EPCHC) in Tampa and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was received June 7, 2000.

II. Public Comment(s).

Comments were received and the DRAFT Title V Operation Permit was changed. The comments were not considered significant enough to reissue the DRAFT Title V Permit and require another Public Notice. Comments were received from one respondent(s) during the 30 (thirty) day public comment period. Listed below is each comment letter in the chronological order of receipt and a response to each comment in the order that the comment was received. The comment(s) will not be restated. Where duplicative comments exist, the original response is referenced.

A. Letter from Karen A. Sheffield, TEC, received July 7, 2000. (For convenience purposes the comments submitted by TEC were numbered).

1. Placard Page. Corrected permit citation from 0570040-007-AC to 0570040-010-AC.

2. Section II. Conditions 6. and 11.2. are labeled as being "Not federally enforceable". Condition 11.2. was kept for consistency with the Big Bend permit. The following change was also made to condition 11.2. for consistency: **from:** "Alteration or replacement of any equipment* or parameter listed in the description." **to:** "Alteration or replacement of any equipment* or parameter listed in the Facility or Subsection descriptions."

3. Section III.A. Added to the description the unit's ability to burn wood derived fuel (WDF). Note, the revised draft incorporated the air construction permit by reference only.

4. Section III.A., Section III.B. and Section III.C. Added clarifier that these units are conditional substitution units.

5. Condition III.A., Condition III.B. and Condition III.C.2. Deleted fuel type columns. These columns were not necessary.

6. Conditions III.A.2., III.B.2. and III.C.2. Reworded these conditions and reflected authority to burn WDF in Unit No. 3 only. Reflected authorities to burn nonhazardous boiler chemical cleaning wastes from Appendix I-1. Deleted permitting note on start up for consistency with other utility permits. Changed permitting note on flame stabilization for consistency with the Big Bend permit.

7. Condition III.A.3., B.4. and C.3. Clarifying language was added that the annual RATA for SO2 may be submitted to satisfy the annual SO2 stack test requirement. Deleted permitting note on test conditions. The applicant is aware that tests are required under soot blowing and nonsoot blowing conditions. Added the following rule reference to regulatory conditions – "Rule 62-296.405(1)(e)3., F.A.C."

8. Conditions III.A.4.C., III.B.5.C. and III.C.4.C., Monthly record of fuel required. RACT rule does not require daily record.

9. Condition III.A.4.1. Compliance plan requirement. The applicant provided a P.E. certification that the units are in compliance with the AC permit. Added the specific conditions from Permit No. 0570040-011-AC into a new condition A.5. The publicly noticed revised draft permit had simply incorporated the AC permit by reference.

10. Condition III.A.6., B.7, and C.5. Added the authorization to vent slag tanks for safety reasons granted in the department's letter dated July 7, 1997.

11. Condition III.B.5. "Low sulfur" reference deleted to properly describe fuels.

12. Condition III.B.6.6. Used oil requirements. Changed "F.J. Gannon Station" to "TEC" for consistency with other utility permits. The requirements to complete the records in condition B.6.f.(1) and (2) are deleted. The quarterly reporting requirement of paragraph (g) is also deleted. The request to remove the AOR is not granted. These changes are made for consistency.

13. Condition III.C. The model number for the ESP was deleted from the description. The RACT O&M plan contains the model numbers for the ESP's.

14. Fuel type column in Condition III.D.1. was deleted, not necessary. The permitting note was expanded for consistency.

15. Condition III.D.9. Added an option for comparable method of fuel analysis.

16. Reference to condition D.5. in condition D.22. was corrected.

17. Condition E.16. and E.17. Compliance plan requirement. The applicant provided a P.E. certification that the units are in compliance with the AC permits. The specific conditions from the fuel yard modification permit Number 0570040-006-AC were specifically added instead of incorporated by reference as in the publicly noticed revised draft. The compliance plan conditions E.16. and E.17. were deleted.

18. Condition III.E.3. "Coal" changed to "fuel."

19. Condition III.E.4. was replaced with PCP requirements from permit Number 0570040-006-AC.

20. Condition III.E.5. paragraph A. was changed from: "...westbucket to the west hopper..." to "... clamshell to the hopper...".

21. Condition III.E.8. reference to "live and dead" coal piles was deleted.

22. Condition III.E.9. "Martin Marietta" changed to "Benetech".

23. Condition III.E.13. and E.14. deleted.

24. Conditions III.E.5.B.1., G.5.B.1. and H.5.B.1. The requirement to log at each shift change was deleted. A daily log is maintained.

25. Condition III.G.4.1. and 2., H.4., I.4. Federal fiscal year was specified. Reference to F.11. requirement changed to include the actual requirement.

26. The proper condition on testing for the coal bunkers from the AO permit was added (see condition I.4.).

27. The O&M requirement in condition I.5. was deleted since the unit is exempt from RACT.

28. The SO2 Compliance Plan requirements were inserted into condition J.4. instead of incorporated by reference as in the publicly noticed revised draft

29. Condition J.7. The four six-minute exception was added.

30. Added permitting note to condition J.12.

31. Condition J.12.b. was changed to reflect the option of using either the performance specifications of 40CFR60 or 40CFR75.

32. Condition J.22. Ability to use comparable method added.

33. Condition J.25. Changed to cover condition J.6. and J.7.

34. Condition J.26. Sulfur variability study deleted. (not needed because the source demonstrates compliance with CEMS).

35. Condition J.31. Requiring fuel monitors deleted. Process variable condition J.23. already requires.

36. Condition J.32. Clarifying language added for poor VE testing situations.

37. Condition J.33. Recordkeeping and reporting changes made to boiler cleaning wastes similar to the used oil burning changes.

38. Condition K.4. Not needed since operating rates during testing specified already.

39. Condition K.11. Not needed since the frequency is specified already.

40. The Gannon Station has been authorized to burn on-spec used oil by previous permits. For consistency purposes with other electric utility permits, the boilers are allowed to burn a limited quantity of on-spec used oil. Condition J.34. was moved from condition B.6. to reflect this authorization.

41. The 1.1 lbs. SO2/MMBTU heat input limit applied to on-spec used oil was deleted. This EPCHC rule does not apply because these units burn a limited quantity of on spec used oil. The EPCHC agreed with this change.

B. Document(s) on file with the permitting authority:
- TEC Comments received July 7, 2000.

III. Conclusion.

The permitting authority hereby issues the PROPOSED Permit No.: 0990234-001-AV, with any changes noted above.

STATEMENT OF BASIS

Tampa Electric Company
F. J. Gannon Station

Initial Title V Air Operation Permit
PROPOSED 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. Units 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. 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 is also permitted to burn Wood Derived Fuel (WDF). Unit No. 3 began commercial operation in August 1960.

{Permitting note: These emissions units are regulated under Acid Rain, Phase I SO_2 as conditional substitution units; Acid Rain, Phase II SO_2; and, Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per hour heat input. Unit No. 3 is regulated under Acid Rain, Phase II NO_X.}

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.

{Permitting note: This emissions unit is regulated under Acid Rain, Phase I SO_2 as a conditional substitution unit; Acid Rain Phase II SO_2 & NO_X; and, Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per hour heat input.}

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. 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 SO_2 as conditional substitution units; Acid Rain Phase II SO_2 & NOx; and, Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per hour heat input.}

The six boilers demonstrate compliance with the sulfur dioxide standard by the use of CEMS.

These units are subject to a steady-state PM emission limit of 0.1 lb/mmBtu and 0.3 lb/mmBtu for soot blowing. The applicant has presented historical PM test results which show that the soot blowing average results are less than half the applicable effective standard. The Department has determined that sources with emissions less than half of the effective standard shall test annually. The average test results from the most recent five years of particulate matter compliance testing under sootblowing conditions (testing under non-sootblowing conditions was not required when the sootblowing result showed compliance with the non-sootblowing limit; therefore, no non-sootblowing tests have been performed in the past five years) are as follows:

Unit 1: 0.03 lb/MMBtu
Unit 2: 0.04 lb/MMBtu
Unit 3: 0.03 lb/MMBtu
Unit 4: 0.04 lb/MMBtu
Unit 5: 0.04 lb/MMBtu
Unit 6: 0.08 lb/MMBtu

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each emissions unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. A note below the permitted capacity condition clarifies this. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the emissions unit was tested. Rule 62-297.310(5),F.A.C., included in the permit, requires measurement of process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to

fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

Combustion Turbine No. 1 is a simple cycle combustion turbine and is designated as Combustion Turbine No. 1. 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.}

For the operation of a fuel yard serving the F. J. Gannon Station boiler Units 1 through 6, yard activities includes barge (East and West) and railcar unloading of coal, truck/barge/train unloading of flux, and transfer and storage of these materials. Particulate matter control media and other yard activity parameters

For the operation of a fuel yard serving the F. J. Gannon Station boiler Units 1 through 6, yard activities includes barge (clamshell and continuous) and railcar unloading of coal, truck/barge/train unloading of flux, and transfer and storage of these materials.

{Permitting note: This emissions unit is regulated under Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operation; and, Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter.}

For the operation of F.J. Gannon Station Units 5 and 6 Fly Ash Silo No. 1 with baghouse, pugmill, and truck loading. 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. In addition, fly ash from F. J. Gannon Station Units I-4 Fly Ash Silo No. 2 may be routed via gravity flow to the pugmill where it is "conditioned" by wetting with water and gravity fed into open bed trucks. The fly ash is then transported to an off-site consumer. Fly ash may also be conveyed from tanker trucks to Fly Ash Silo No. 1 and from Fly Ash Silo No. 1 to Fly Ash Silo No. 2. 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: These emissions units are regulated under Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operation; and, Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter.}

For the operation of F.J. Gannon Station Units 1-4 Fly Ash Silo No. 2 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. In addition, fly ash from silo No. 2 may be routed to the pugmill at F. J. Gannon Station Silo No. 1 where it is "conditioned" by wetting with

water and gravity fed into open bed trucks. The fly ash in the silo is gravity fed by tubing into enclosed tanker trucks for transport to an off-site consumer. Fly ash may also be conveyed from tanker trucks to Fly Ash Silo No. 2 and from Fly Ash Silo No. 2 to Fly Ash Silo No. 1. 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; and, Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter.}

For the operation of the F.J. Gannon Station Units 1-6 fuel bunkers with exhaust fan/cyclone collectors (Roto-Clones) controlling dust emissions from each unit's respective bunker, two moving transfer stations via their respective conveyor belts route fuel through enclosed chutes to each of the six bunkers. Fuel bunkers Nos. 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. Fuel 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 fuel bunker via a hopper and return line. Units 1-6 fuel bunkers are situated in a west to east fashion. Unit 1 fuel bunker is located furthest to the west and Unit No. 6 fuel bunker furthest to the east.

{Permitting note: These emissions units are exempt from Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operation.}

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).

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

Initial Title V Air Operation Permit
PROPOSED 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: 850/488-0114
Fax: 850/922-6979

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

July 21, 2000

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

Table of Content

Department of Environmental Protection

Jeb Bush
Governor

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2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

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

PROPOSED 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_2 Acid Rain Application/Compliance Plan received December 26, 1995.
Consent Final Judgement (DEP vs. TECO) dated December 6, 1999.
Phase II NOx Compliance (Averaging) Plan received December 22, 1999.
Consent Decree (U.S. vs. TECO) dated February 29, 2000.
Attachment 1, PRELIMINARY DETERMINATION POLLUTION CONTROL PROJECT.

Effective Date: January 1, 2001
Renewal Application Due Date: July 5, 2005
Expiration Date: December 31, 2005

Howard L. Rhodes, Director
Division of Air Resources Management

HLR/sms

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.

E.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 No. 1
-008	F. J. Gannon Station Fuel Yard
-009	Unit 4 Economizer Ash Silo with Baghouse
-010	Units 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 Fuel Bunker with Roto-Clone
-014	Unit No. 2 Fuel Bunker with Roto-Clone
-015	Unit No. 3 Fuel Bunker with Roto-Clone
-016	Unit No. 4 Fuel Bunker with Roto-Clone
-017	Unit No. 5 Fuel Bunker with Roto-Clone
-018	Unit No. 6 Fuel 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_2 Acid Rain Permit dated July 14, 1994.
Letter dated October 8, 1996, from Thomas W. Reese.
EPCHC comments dated September 30, 1996.
DEP Additional Information Request dated November 19, 1996.
Tampa Electric Company (TEC) Additional Information Response received February 21, 1997.
DEP Additional Information Request dated March 20, 1997.
EPCHC comments dated March 21, 1997.
TEC Additional Information Response received June 16, 1997.
TEC letter dated February 21, 1997, changing the Responsible Official.
TEC letter dated June 13, 1997, changing the Responsible Official.
TEC letter dated June 27, 1997, changing the Designated Representative.
Letter dated July 7, 1997, authorizing venting of slag tanks to atmosphere.

1st DRAFT Title V permit clerked on August 26, 1997.
Public notice published on September 3, 1997.
TEC request for an extension of time to file a petition for an administrative hearing dated September 26, 1997.
Phase II NOx Compliance Plan received December 29, 1997.
TEC permit comments dated March 19, 1998.
TEC letter dated July 1, 1998, changing the Designated Representative.
DEP withdrawal of DRAFT permit dated September 30, 1998.

TEC's air pollutant dispersion modeling report dated October 15, 1998.
USEPA's air pollutant dispersion modeling letter dated April 13, 1999.

2nd DRAFT (Revised) Title V permit clerked on September 30, 1999.
Public notice published on October 11, 1999.
TEC request for an extension of time to file a petition for an administrative hearing dated December 15, 1999.
Manatee County Citizens Against Air Pollution comments dated November 9, 1999.
TEC permit comments dated November 10, 1999.

Manatee County comments dated November 12, 1999.
USEPA letter dated November 17, 1999, addressing Phase II NOx Averaging Plans.
TEC request for an extension of time to file a petition for an administrative hearing dated December 15, 1999.

TEC's SO_2 Compliance Plan received April 6, 2000.
TEC letter dated June 2, 2000, requesting removal of periodic monitoring.

3rd DRAFT (Revised) Title V permit clerked on June 6, 2000.
Public notice published on June 7, 2000.
TEC request for an extension of time to file a petition for an administrative hearing dated June 30, 2000.
TEC permit comments dated July 7, 2000.
Appendix F, Ambient Air Quality Compliance Plan for SO_2 Emissions.
PROPOSED permit posted for USEPA review on xx/xx/xx.

Section II. Facility-wide Conditions.

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.
{Permitting Note: Although the permittee is not required to perform a visible emissions compliance test to demonstrate compliance with the facility-wide limitations annually or before renewal, if the Department or EPCHC believes that the general visible emissions standard is being violated, the Department or EPCHC may require that the owner or operator perform a visible emissions compliance test per Chapter 62-297.310(7)(b), Special Compliance Tests. In addition, Department or EPCHC personnel who are certified to perform visible emissions tests may determine compliance with the general visible emissions standard.}
[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. Insignficant Emissions Units and/or Activities. 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 actions 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. The permittee shall comply with the Consent Final Judgement (DEP vs. TECO) dated December 6, 1999, and the Consent Decree (U.S. vs. TECO) dated February 29, 2000.
[Rules 62-4.070(3)&(5) and 62-213.440, F.A.C.]

10. 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.]

11.1. 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 (EPCHC):

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

11.2. Not federally enforceable. 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:

1. Alteration or replacement of any equipment* or parameter listed in the Facility or Subsection descriptions.
2. Installation or addition of any equipment* which is a source of air pollution.
3. 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.
[Rules 62-4.070(3) and 62-210.300, F.A.C.]

12. 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

Section III. Emissions Units.

Subsection A. This section addresses the following emissions units.

E.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

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. Units 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. 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 is also permitted to burn Wood Derived Fuel (WDF). Unit No. 3 began commercial operation in August 1960.

{Permitting note: These emissions units are regulated under Acid Rain, Phase I SO_2 as conditional substitution units; Acid Rain, Phase II SO_2; and, Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per hour heat input. Unit No. 3 is regulated under Acid Rain, Phase II NO_X.}

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
1 and 2	1257
3	1599

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each emissions unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. A note below the permitted capacity condition clarifies this. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the emissions unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including, but not limited to, fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.} [Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

A.2. Methods of Operation. Fuels.

a. Normal operation: The only fuels allowed to be burned are coal and on-specification used oil. Wood derived fuel is allowed to be burned in Unit No. 3.
b. Startup; shutdown; malfunctions: In addition to the fuels allowed to be burned during normal operations, each unit may also burn new No. 2 fuel oil during startup, shutdown and malfunctions. This includes but is not limited to the emission unit, a new cyclone/mill or flame stabilization.
c. The injection of nonhazardous boiler chemical cleaning waste is allowed in each unit.

{Permitting note: "Flame stabilization" is defined as the use of new No. 2 fuel oil to stabilize a flame during times of unexpected poor coal quality or equipment failure such as coal piping pluggage. Flame stabilization due to poor coal quality occurs when coal is wet or does not provide the necessary heat to maintain a stable flame. In this situation, new No. 2 fuel oil is combusted to provide the additional required heat input to maintain a stable flame. Flame stabilization due to equipment failure occurs when coal piping is plugged or equipment is otherwise damaged that results in an inconsistent amount of coal reaching the burners. Under certain conditions, this may result in the burners intermittently seeing large amounts of fuel at one time, causing a potentially explosive flame 'puff'. In this situation, new No. 2 fuel oil must be used for stabilization to prevent flame 'puffing' and ensure safe operation. Combustion of No. 2 fuel oil is also necessary during periods of load change to initialize and stabilize the flame until coal flow to the burners reaches steady state. As defined in 62-210.700(3), F.A.C., Load change occurs when the operational capacity of a unit is in the 10 to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.}
[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. Each test shall be conducted annually during each federal fiscal year (October 1 – September 30). The annual calibration RATA associated with the use of SO2 CEMS may be used in lieu of the required annual EPA Reference Method 6, as long as all of the requirements of Rule 62-297.310, F.A.C., are met.

Unit No.	Required Testing
1	Particulate Matter (non-sootblowing)
	Particulate Matter (soot-blowing)
	Visible Emissions (non-sootblowing)
	Visible Emissions (soot-blowing)
	Sulfur Dioxide
2	Particulate Matter (non-sootblowing)
	Particulate Matter (soot-blowing)
	Visible Emissions (non-sootblowing)
	Visible Emissions (soot-blowing)

	Sulfur Dioxide
3	Particulate Matter (non-sootblowing)
	Particulate Matter (soot-blowing)
	Visible Emissions (non-sootblowing)
	Visible Emissions (soot-blowing)
	Sulfur Dioxide

[Rules 62-296.405(1)(e)3., and 62-297.310(7)(a)4., F.A.C.; AO29-204434, AO29-189206, and AO29-172179]

Monitoring of Operations

A.4. Operation and Maintenance for Particulate Matter Control:

A. Process System Performance Parameters:
1. Source Designator: Units Nos. 1, 2 and 3
2. Design Fuel Consumption Rate at Maximum Continuous Rating:

Unit	Tons/hr (fuel)
1	50
2	51
3	65

3. Operating Pressure:

Unit	Psi
1	1575
2	1580
3	1980

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

Unit	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:

Unit	ACFM
1	440,000
2	440,000
3	574,000

4. Primary Voltage: 460 volts
5. Primary Current:

Unit	Amps
1	258
2	258
3	172

6. Secondary Voltage: 56.6 kilovolts
7. Secondary Current:

Unit	milliamps
1	1,500

2	1,500
3	1,000

8. Design Efficiency: 99.09%
9. Pressure Drop: 1.59 in H_2O (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 these emissions units 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:
Primary voltage
Primary current
Secondary voltage
Secondary current
Inspect system controls. Make minor adjustment as needed.

Monthly Recorded or Inspection/Maintenance:
Fuel input
Inspect insulator compartment heaters/blowers. Service as needed.
Observe operation of all rapper and transformer/rectifier controls.

[Rules 62-296.700(6)(b), and 62-296.700(6)(d), F.A.C.]

Miscellaneous Conditions

A.5. Wood Derived Fuel. Unit No. 3 is permitted to be fired on coal or a coal / wood-derived fuel (WDF) blend with the following restrictions:

a. The maximum amount of WDF fired shall not exceed 10% of the fuel fired in the boiler on a weight basis. (* *Note: See c. below for additional restrictions.*)

b. WDF shall be defined only as material falling under one of the following type categories (* *Note: See c. below for additional restrictions*):

i. Paper Pellets - Pellets consisting of paper, cardboard and polymer-impregnated or coated paper, such as disposable drinking cups, paper plates, etc., It shall include no materials coated or treated with hazardous substances including, but not limited to, tar, asphalt, and coatings containing heavy metals. Pellets shall be free of hazardous

substances and as free as practicable of metal, hard plastics, textiles, and food products.

ii. Yard Trash - As defined in Rule 62-701.200 (90), F.A.C., and shall contain only vegetative material resulting from landscaping maintenance or land clearing operations and includes materials such as trees and shrub trimmings, grass clippings, palm fronds, trees and tree stumps.

iii. Wood/Wood Chips - Derived from clean wood lumber, pallets, construction debris free of listed hazardous substances including, but not limited to, pentachlorophenol, creosote, tar, asphalt, and paint containing heavy metals.

c. Based upon the operating conditions during the (March 4 and May 27) 1998 WDF test burn, the following additional WDF usage restrictions apply until additional compliance stack testing is done during firing of different WDF blend ratios and WDF types.

i. WDF is limited to a maximum of 7.0% of the fuel fired in the unit on a weight basis *(based on tested WDF blend ratio (6.3%) + 10% = 7.0%).*

ii. WDF is limited to paper pellets only.

In order to increase the WDF blend ratio above the level in C. i. (but never to exceed 10% WDF), or allow for the blending of Yard Trash and Wood/Wood Chips as part of the WDF, then additional testing shall be conducted on Unit 3. To increase the blend % for WDF consisting of paper pellets only, PM and VE testing only will be required. Successful testing showing compliance with the operation permit limitations at a higher blend ratio will allow future operation up to that level + 10% (not to exceed 10% WDF by weight). Successful testing (i.e. testing showing compliance with the permit limitations and demonstrating no increase in emissions due to the inclusion of the additional types of WDF) while firing Yard Trash and Wood/Wood Chips will allow for subsequent use of those categories of WDF as part of the coal/WDF blend. The permittee shall notify the Air Compliance Section of the Southwest District Office of the Department and the Air Management Division of the Environmental Protection Commission of Hillsborough County (EPC), 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. The test notification shall include a proposed test protocol which, upon agreement by the Department, will establish the testing to be done and the conditions under which the test will be conducted and evaluated. A copy of the test report shall be submitted to the Air Management Division of the EPC and the Air Compliance Section of the Southwest District Office of the Department within 45 days after the test is completed.

{Testing Note: As it deems appropriate and applicable, the Department may take into account the results of any WDF blend testing conducted on F.J. Gannon Unit 4 in approving changes to WDF types and blend ratios for Unit 3 in lieu of additional testing on Unit 3.}

d. Paper pellets fired in this unit shall be produced using a waste separation process as described or similar to that described as the "typical waste separation process for Paper Pellets" submitted as Attachment D to the application for this project, including

separation of large items, hand sorting, metal extraction/separation, air classification, organic material screening, and large film plastic removal; or equivalent waste separation processing methods (i.e. methods that are designed to result in a target level of approximately 5% or less non-paper materials in the final waste stream). Each time that the permittee receives material from a new paper pellet supplier, or there is a significant change in the waste separation process of a prior supplier, the permittee shall submit a detailed description of the waste separation process used by that supplier (or changes to a previously submitted supplier's process) to the Air Management Division of the Environmental Protection Commission of Hillsborough. The Department reserves the right to request additional information, require additional testing of, or disapprove use of paper pellets from this supplier if it has good reason to believe that this waste separation process will not result in material that meets the above definition of Paper Pellets.

e. Additional Recordkeeping Requirements. In order to document compliance with Specific Condition No. **A.5.a. through A.5.d.**, the permittee shall maintain daily records for Unit 3 of the quantity (tons) of WDF fired, with a statement as to the type(s) of WDF included (i.e. Paper Pellets, Yard Trash and/or Wood/Wood Chips), and the coal/WDF blend ratio (on a weight basis). The permittee shall also keep records on a monthly basis of the estimated total of WDF fired by type (i.e. Paper Pellets, Yard Trash and/or Wood/Wood Chips). This monthly record shall also include a statement identifying the suppliers of the paper pellets used that month. These records shall be recorded in a permanent form suitable for inspection by the Department upon request, and shall be retained for at least a five (5) year period.

f. Additional Compliance Testing Requirements. Future annual particulate and visible emissions testing shall be conducted while firing coal/WDF blend at 90-100% of the maximum permitted WDF blend ratio (or the maximum WDF blend ration for which the permittee wants the unit to be permitted for, not to exceed 10% WDF). This requirement may be waived (and testing done on 100% coal) if coal/WDF blend has been fired for less than 400 hours in the previous 12 month period and it is anticipated that it will not be used for more than 400 hours in the next 12 month period. The test reports shall include a statement and documentation of the coal/WDF blend ratio (weight basis) in use during the test, including a statement as to the types of WDF (i.e. Paper Pellets, Yard Trash and/or Wood/Wood Chips) included in the WDF material fired.

[Rules 62-213.440(1), 62-4.070(3), 62-297.310(7)(a)9, and 62-297.310(2) and (8), F.A.C., and Permit No. 0570040-011-AC]

A.6. Emergency Venting of Slag Tanks. Rule 62-210.700(5) F.A.C., authorizes the Department to consider variation in industrial equipment and make allowance for excess emissions that provide practical regulatory controls consistent with the public interest.

In accordance with the provisions of the above Rule, Tampa Electric Company (TEC) is hearby authorized to bypass the electrostatic precipitator(s) and allow venting of slag tanks directly to the atmosphere. This authorization applies to F.J. Gannon Station Steam Units 1 through 6 only, and is subject to the following conditions:

(a) 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.

(b) The permittee shall notify the Southwest District and EPCHC should a situation develop which requires the venting of more than the equivalent of one slag tank volume per each emergency to correct the situation in a timly manner, not to exceed two hours.

(c) TEC shall provide the Department and EPCHC 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.

(d) TEC shall maintain a log of dates and duration of tank venting.

[Rules 62-213.440(1) and 62-210.700(5) F.A.C.; and, authorization letter dated July 7, 1997.]

A.7. These emissions units are also subject to conditions contained in **Subsection J. Common Conditions.**

Subsection B. This section addresses the following emissions unit.

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

This emissions unit is a 1876 MMBTU/hr coal fired steam generator. This "wet" bottom boiler was manufactured by Babcock-Wilcox Corporation and is of the cyclone firing type. The generator has a nameplate capacity of 187.5 MW. Particulate 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.

{Permitting note: This emissions unit is regulated under Acid Rain, Phase I SO_2 as a conditional substitution unit; Acid Rain Phase II SO_2 & NO_X; and, 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:

Unit No.	MMBtu/hr Heat Input
-004	1876

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each emissions unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. A note below the permitted capacity condition clarifies this. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the emissions unit was tested. Rule 62-297.310(5),F.A.C., included in the permit, requires measurement of process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including, but not limited to, fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.} [Rule 62-4.160(2), 62-210.200 (PTE) and 62-296.405, F.A.C.]

B.2. Methods of Operation - Fuels.

a. Normal operation: The only fuels allowed to be burned are coal and on-specification used oil.

b. Startup; shutdown; malfunctions: In addition to the fuels allowed to be burned during normal operations, each unit may also burn new No. 2 fuel oil during startup, shutdown and malfunctions. This includes but is not limited to the emission unit, a new cyclone/mill or flame stabilization.

c. The injection of nonhazardous boiler chemical cleaning waste is allowed in each unit.

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

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. Each test shall be conducted annually during each federal fiscal year (October 1 – September 30). The annual calibration RATA associated with the use of SO2 CEMS may be used in lieu of the required annual EPA Reference Method 6, as long as all of the requirements of Rule 62-297.310, F.A.C., are met.

Unit No.	Required Stack Testing
4	Particulate Matter (non-sootblowing)
	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: 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 gals/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
5. Primary Current: 172 amps
6. Secondary Voltage: 56.6 kilovolts
7. Secondary Current: 1,000 milliamps
8. Design Efficiency: 99.05%
9. Pressure Drop: 1.58 in H_2O (avg)
10. Rapper Frequency: 1/1.5 min - 1/3.5 min (avg)
11. Rapper Duration: Impact
12. Gas Temperature: 250 $\pm$ 55° F. (avg)

C. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Continuously Monitored and Recorded:
Opacity
Steam pressure
Steam temperature
Steam flow

Continuously Monitored:
Precipitator Trouble Alarm

Daily Recorded and Inspected:
Primary voltage
Primary current
Secondary voltage
Secondary current
Inspect system controls. Make minor adjustment as needed.

Monthly Recorded or Inspection/Maintenance:
Fuel input
Inspect insulator compartment heaters/blowers. Service as needed.
Observe operation of all rapper and transformer/rectifier controls.

[Rules 62-296.700(6)(b) and 62-296.700(6)(d), F.A.C.]

Miscellaneous Conditions

B.6. <reserved>

B.7. Emergency Venting of Slag Tanks. Rule 62-210.700(5) F.A.C., authorizes the Department to consider variation in industrial equipment and make allowance for excess emissions that provide practical regulatory controls consistent with the public interest.

In accordance with the provisions of the above Rule, Tampa Electric Company (TEC) is hearby authorized to bypass the electrostatic precipitator(s) and allow venting of slag tanks directly to the atmosphere. This authorization applies to F.J. Gannon Station Steam Units 1 through 6 only, and is subject to the following conditions:

(e) 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.

(f) The permittee shall notify the Southwest District and EPCHC should a situation develop which requires the venting of more than the equivalent of one slag tank volume per each emergency to correct the situation in a timly manner, not to exceed two hours.

(g) TEC shall provide the Department and EPCHC 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.

(h) TEC shall maintain a log of dates and duration of tank venting.

[Rules 62-213.440(1) and 62-210.700(5) F.A.C.; and, authorization letter dated July 7, 1997.]

B.8. This emissions unit is also subject to conditions contained in **Subsection J. Common Conditions.**

Subsection C. This section addresses the following emissions units.

E.U. ID No.	Brief Description
-005	Unit No. 5-Fossil Fuel Fired Steam Generator
-006	Unit No. 6-Fossil Fuel Fired Steam Generator

Unit No. 5 is a 2284 MMBTU/hr coal fired steam generator. This "wet" bottom boiler was manufactured by Riley Stoker Corporation and is of the opposed firing type. The generator has a nameplate capacity of 239.4 MW. Particulate 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. 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 SO_2 as conditional substitution units; Acid Rain Phase II SO_2 & NOx; and, 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
-005	2284
-006	3798

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each emissions unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. A note below the permitted capacity condition clarifies this. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the emissions unit was tested. Rule 62-297.310(5),F.A.C., included in the permit, requires measurement of process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including, but not limited to, fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.} [Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

C.2. Methods of Operation - Fuels.

a. Normal operation: The only fuels allowed to be burned are coal and on-specification used oil.
b. Startup; shutdown; malfunctions: In addition to the fuels allowed to be burned during normal operations, each unit may also burn new No. 2 fuel oil during startup, shutdown and malfunctions. This includes but is not limited to the emission unit, a new cyclone/mill or flame stabilization.
c. The injection of nonhazardous boiler chemical cleaning waste is allowed in each unit.

{Permitting note: "Flame stabilization" is defined as the use of new No. 2 fuel oil to stabilize a flame during times of unexpected poor coal quality or equipment failure such as coal piping pluggage. Flame stabilization due to poor coal quality occurs when coal is wet or does not provide the necessary heat to maintain a stable flame. In this situation, new No. 2 fuel oil is combusted to provide the additional required heat input to maintain a stable flame. Flame stabilization due to equipment failure occurs when coal piping is plugged or equipment is otherwise damaged that results in an inconsistent amount of coal reaching the burners. Under certain conditions, this may result in the burners intermittently seeing large amounts of fuel at one time, causing a potentially explosive flame 'puff'. In this situation, new No. 2 fuel oil must be used for stabilization to prevent flame 'puffing' and ensure safe operation. Combustion of No. 2 fuel oil is also necessary during periods of load change to initialize and stabilize the flame until coal flow to the burners reaches steady state. As defined in 62-210.700(3), F.A.C., Load change occurs when the operational capacity of a unit is in the 10 to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.}
[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. Units 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. Each test shall be conducted annually during each federal fiscal year (October 1 – September 30). The annual calibration RATA associated with the use of SO2 CEMS may be used in lieu of the required annual EPA Reference Method 6, as long as all of the requirements of Rule 62-297.310, F.A.C., are met.

Unit No.	Required Stack Testing
5	Particulate Matter (non-sootblowing)
	Particulate Matter (soot-blowing)
	Visible Emissions (non-sootblowing)
	Visible Emissions (soot-blowing)
	Sulfur Dioxide
6	Particulate Matter (non-sootblowing)
	Particulate Matter (soot-blowing)
	Visible Emissions (non-sootblowing)
	Visible Emissions (soot-blowing)
	Sulfur Dioxide

[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:

Unit	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:

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

B. Particulate Matter Control Equipment Data:

1. Control Equipment Designator: Two Electrostatic Precipitators Unit No. 5; One Electrostatic Precipitator Unit No. 6
2. Electrostatic Precipitator Manufacturer: Research Cottrell Inc.
3. Model Numbers:
   Unit No. 5: G.O. 3129; G.O. 2791
   Unit No. 6: G.O. 3118
4. Design Flow Rate:

Unit	ACFM
5	820,000; 700,000
6	1,350,000

5. Primary Voltage:

Unit	Volts
5	400; 400
6	430-480

6. Primary Current:

Unit	Amps
5	240; 195
6	241

7. Secondary Voltage:

Unit	Volts
5	53.5; 64.5
6	53.5

8. Secondary Current:

Unit	milliamps
5	1,500; 1,000
6	1,500

9. Design Efficiency:

Unit	Percent

5 99.78; 98.5
6 98.5

10. Pressure Drop: 0.5 in H_2O (avg)
11. Static Pressure: +15 in H_2O (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:
Primary voltage
Primary current
Secondary voltage
Secondary current
Inspect system controls. Make minor adjustments as needed.

Monthly Recorded or Inspection/Maintenance:
Fuel input
Inspect penthouse blowers and tub heaters. Replace as necessary.
Observe operation of all rapper and transformer/rectifier controls..

[Rules 62-296.700(6)(b) and 62-296.700(6)(d), F.A.C.]

C.5. Emergency Venting of Slag Tanks. Rule 62-210.700(5) F.A.C., authorizes the Department to consider variation in industrial equipment and make allowance for excess emissions that provide practical regulatory controls consistent with the public interest.

In accordance with the provisions of the above Rule, Tampa Electric Company (TEC) is hearby authorized to bypass the electrostatic precipitator(s) and allow venting of slag tanks directly to the atmosphere. This authorization applies to F.J. Gannon Station Steam Units 1 through 6 only, and is subject to the following conditions:

(i) 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.

(j) The permittee shall notify the Southwest District and EPCHC should a situation develop which requires the venting of more than the equivalent of one slag tank volume per each emergency to correct the situation in a timly manner, not to exceed two hours.

(k) TEC shall provide the Department and EPCHC 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.

(l) TEC shall maintain a log of dates and duration of tank venting.

[Rules 62-213.440(1) and 62-210.700(5) F.A.C.; and, authorization letter dated July 7, 1997.]

C.6. These emissions units are also subject to conditions contained in **Subsection J. Common Conditions.**

Subsection D. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
-007	Combustion Turbine No. 1

This emissions unit is a simple cycle combustion turbine and is designated as Combustion Turbine No. 1. 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 unit listed above:

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity. The maximum operation heat input rates are as follows:

Unit No.	MMBtu/hr Heat Input
-007	256.5

{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. A note below the permitted capacity condition clarifies this. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the emissions unit was tested. Rule 62-297.310(5),F.A.C., included in the permit, requires measurement of process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including, but not limited to, fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

D.2. Emissions Unit Operating Rate Limitation After Testing. See **Specific Condition D.13.**
[Rule 62-297.310(2), F.A.C.]

D.3. Methods of Operation - Fuels. Only new No. 2 fuel oil shall be fired in the combustion turbine.
[Rules 62-4.160(2) and 62-213.440(1), F.A.C.]

D.4. Hours of Operation. This emissions unit may operate continuously, i.e., 8,760 hours/year.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AO29-252615]

Emission Limitations and Standards

{Permitting Note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

D.5. Visible Emissions. Visible emissions shall not be equal to or greater than 20 percent opacity.
[Rule 62-296.320(4)(b)1., F.A.C.]

D.6. Not federally enforceable. Sulfur Dioxide - Sulfur Content. The sulfur content of the new No. 2 fuel oil shall not exceed 0.5 percent, by weight.
[Requested in initial Title V permit application received June 14,1996; and, AO29-252615]

Excess Emissions

D.7. Excess emissions from this 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, or some other comparable method (i.e, composite as-delivered fuel sample analysis).
[Rule 62-213.440, F.A.C.]

D.10. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

D.11. Visible Emissions. The test method for visible emissions shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.
[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

D.12. Sulfur Dioxide - sulfur content. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91 or the latest edition of the above ASTM methods.
[Rules 62-213.440 and 62-297.440, F.A.C.]

D.13. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rule 62-297.310(2), F.A.C.]

D.14. Applicable Test Procedures.
(a) Required Sampling Time.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
[Rule 62-297.310(4)(a)2.c., F.A.C.]

D.15. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation

permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

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

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; SIP approved; and, AO29-252615]

D.16. Visible Emissions Testing - Annual. By this permit, annual emissions compliance testing for visible emissions is not required for 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 new No. 2 oil sold in Florida have a maximum sulfur content not to exceed 0.5% by weight), 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 new 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.16.**, 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	F. J. Gannon Station Fuel Yard

For the operation of a fuel yard serving the F. J. Gannon Station boiler Units 1 through 6, yard activities includes barge (clamshell and continuous) and railcar unloading of coal, truck/barge/train unloading of flux, and transfer and storage of these materials. Particulate matter control media and other yard activity parameters are listed below:

Emission Point Description	Emission Point ID	Throughput (tph)	Control Method*	Efficiency
Barge to clamshell	FH-002	2,300	DS	95%
Barge to continuous unloader	FH-003	2,300	DS	95%
Clamshell to barge unloading hopper	FH-005	2,300	DS	95%
Continuous unloader to conveyor A	FH-006	2,300	**DS	95%
Conveyor A to continuous feeder	FH-007	2,300	DS/E	95%
Barge unloading hopper to conveyor B	FH-009	2,300	**DS/E	95%
Conveyor B to conveyor C	FH-011	2,300	DS/E	90%
Conveyor C to conveyors D1, D2	FH-012	2,300	**DS/E	90%
Railcar to rail unloading hopper	FH-013	2,300	DS/E	95%
Rail unloading hopper to conveyor L	FH-014	2,300	**DS/E	95%
Conveyor L to conveyors D1, D2	FH-015	2,300	**DS/E	95%
Conveyor D1 to conveyor M1	FH-016	2,300	**DS/E	90%
Conveyor D2 to conveyor M2	FH-017	2,300	**DS/E	90%
Conveyor M1 to conveyor E1	FH-018	2,300	**DS/E	90%
Conveyor M2 to conveyor E2	FH-019	2,300	**DS/E	90%
Conveyor E1 to fuel storage pile	FH-020	2,300	DS	70%
Conveyor E2 to fuel storage pile	FH-021	2,300	DS	70%
Fuel storage pile	FH-022/023		DS	50%
Underground reclaim to conveyor F1	FH-024	1,600	DS/E	85%
Underground reclaim to conveyor F4	FH-025	1,600	DS/E	85%
Underground reclaim to conveyor F3	FH-026	1,600	DS/E	85%
Underground reclaim to conveyor F2	FH-027	1,600	DS/E	85%
Conveyor F1 to conveyors G1, G2	FH-028	1,600	**DS/E	90%
Conveyor F4 to conveyors G1, G2	FH-029	1,600	**DS/E	90%
Conveyor F3 to conveyors G1, G2	FH-030	1,600	**DS/E	90%
Conveyor F2 to conveyors G1, G2	FH-031	1,600	**DS/E	90%
Conveyor G1 to Crusher 3A	FH-032	800	DS/E	90%
Crusher 3A to Conveyor G1	FH-032a	800	DS/E	90%
Conveyor G1 to Crusher 1A1B	FH-032b	800	DS/E	90%

Conveyor G2 to Crusher 3B	FH-033	800	DS/E	90%
Crusher 3B to Conveyor G2	FH-033a	800	DS/E	90%
Conveyor G2 to Crusher 2A2B	FH-033b	800	DS/E	90%
Crushers 1A1B to conveyor H1	FH-034	800	DS/E	90%
Crusher 3A to Conveyor H1	FH-034a	600	DS/E	90%
Crushers 2A2B to conveyor H2	FH-035	800	DS/E	90%
Crusher 3B to Conveyor H2	FH-035a	600	DS/E	90%
Conveyor H1 to bunkering	FH-036/041		Rotoclones	75%
Conveyor H2 to bunkering	FH-036/041		Rotoclones	75%
Conveyor D1 to conveyors G1, G2	FH-042	2,300	**DS/E	90%
Conveyor D2 to conveyors G1, G2	FH-043	2,300	**DS/E	90%
Dozer operations of storage piles	FH-044		DS	50%
Truck unloading - auxiliary	AH-001	400	DS	85%
Storage pile to auxiliary hopper	AH-002	400	DS/E	90%
Auxiliary hopper to conveyor T	AH-003	400	DS/E	90%
Conveyor T to conveyor U	AH-004	400	DS/E	90%
Conveyor U to conveyors G1, G2	AH-005	400	DS/E	90%

**Dust Suppressant Aplication Point * DS=Dust Suppressant, E=Enclosure

{Permitting note: This emissions unit is regulated under Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operation; and, Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter.}

The following specific conditions apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity.
(a) The coal throughput shall not exceed 3,304,646 tons per 12 consecutive month period. The auxiliary fuel, consisting of TDF and WDF, throughput shall not exceed 362,025 tons per 12 consecutive month period.
(b) The primary NOx control strategy for the facility is the combustion of high moisture, low BTU coal, and is the basis of the Department's determination that this fuelyard throughout increase qualifies for the PSD exemption as a Pollution Control Project (PCP). If the permittee chooses an alternate NOx control strategy, then this project loses its PCP status and the fuelyard throughput reverts to its previous limitation of 2.85 million tons in any 12 consecutive month period. Use of the two new coal crushers, or any other physical changes made to accommodate this project, would then be prohibited until the permittee submits a construction permit application and recieves a Department permit addressing their use.
(c) Attachment 1, PRELIMINARY DETERMINATION POLLUTION CONTROL PROJECT, is a part of this permit.
[Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C.; and, Permit No. 0570040-006-AC.]

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 fuel handling systems and storage shall not exceed 5% opacity.
[Rule 62-296.711(2)(a), F.A.C.; and, AC29-152987]

E.4. In order to maintain the status of the fuel yard throughput increase modification as a Pollution Control Project, the following limits shall apply on a 12 month rolling average basis:

(a) Starting January 1, 1999 total combined coal heat input to boilers 1 through 6 shall not exceed 69.9 X 10^6 mmBtu/year.

(b) Starting January 1, 1999, SO_2 total combined emissions from boilers 1 through 6 shall not exceed 66,400 tons per year (tpy).

(c) Starting January 1, 1999, NOx total combined emissions from boilers 1 through 6 shall not exceed 33,100 tons per year, and starting January 1, 2000, NOx total combined emissions from boilers 1 through 6 shall not exceed 31,800 tons per year.

(d) Starting January 1, 1999, and continuing until superceded by the results of the Precipitator Optimization Study (Referenced in Specific Condition **E.11.**) PM total combined emissions from boilers 1 through 6 shall not exceed 1,940 tons per year.

[Rule 62-212.400(2)(a)2., F.A.C.; and, Permit No. 0570040-006-AC.]

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 during each federal fiscal year (October 1 - September 30):

A. The clamshell to the hopper,
B. The railcar to the hopper,
C. Either the conveyor E1 or E2 to their respective stockpiles where the initial free fall is at least 30 feet,
D. The hammermill crusher to either the conveyor H1 and H2,
E. The conveyors D1 or D2 to either conveyor G1 and G2, and
F. 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.; and, Permit No. 0570040-006-AC]

E.7. Compliance with the limitations in Specific Condition **E.3.** shall be determined on a monthly basis. Heat input shall be determined from the actual fuel input to the boilers and its corresponding heat content, or CEM dat, while the SO_2 and the NOx emissions shall be derived

from the CEM data. PM emissions shall be based on the most recent stack tests, and TECO shall have the option of conducting additional tests, in addition to those specified in this permit.
[Permit No. 0570040-006-AC.]

E.8. Water sprays or chemical wetting agents and stabilizers are acceptable methods to be used on 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.
[Permit Nos. 0570040-006-AC and 0570040-010-AC.]

{Note: Facilities that cause frequent, valid complaints may be required by the Permitting Authority to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.}

Monitoring of Operations

E.9. 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: Benetech

B. Inspection and Maintenance Procedures:

The fuel yard particulate matter control equipment shall 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]

E.10. Dust suppressants shall be applied to the fuel either prior to or at the time of delivery and at all emission points where specified in the table at the beginning of this subsection to control fugitive PM emissions as specified in Specific Condition E.6. For the application of dust suppressants prior to delivery, TECO shall keep monthly records of 1) the amount of dust

suppressant applied for each type and amount of coal delivered, and 2) type of dust suppressant used (e.g., MSD sheets, product name).
[Permit No. 0570040-006-AC.]

Recordkeeping and Reporting Requirements

E.11. As part of the PCP, an Electrostatic Precipitator Optimization Study shall be conducted for all six units at the facility within six months of February 9, 1999. A report shall be due at that point and submitted to both the Environmental Protection Commission of Hillsborough County (EPC) and the Department. The study shall be subject to EPC and Department approval and full implementation of the study shall be completed within twelve months of February 5, 1999 (permit issuance date for Permit No. 0570040-006-AC), or within a period mutually agreed to by the permittee and the EPC. The permittee's application to revise their Title V operating permit shall include verifiable and enforceable operating parameters for the ESPs which reflect the results of the optimization study.
[Permit No. 0570040-006-AC.]

E.12. 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.13. 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.14. 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.; and, Permit No. 0570040-006-AC.]

Reasonable Assurances

E.15. 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.; and, 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]

E.17. 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.; and, Permit No. 0570040-010-AC.]

E.18. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
[Rule 62-297.310(7), F.A.C.; and, Permit No. 0570040-010-AC]

E.19. The new crushers (Crushers 3A and 3B) shall comply with all applicable requirements of 40CFR60, Subpart A, General Provisions. In addition, the new crushers shall comply with 40CFR60, NSPS for Coal Preparation Plants, Subpart Y.
[Rule 62-204.800, F.A.C., 40CFR60, Subpart Y; and, Permit No. 0570040-010-AC]

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; and, Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter.}

The following specific conditions apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

F.1. Permitted Capacity. The maximum permitted operation rate is 1,500 lbs./hr.
[Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: The attached Table 1-1, Summary of Air Pollution Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

F.2. Visible Emission. Visible emissions shall not exceed 5% opacity.
[Rule 62-296.711(2)(a), F.A.C.]

F.3. Particulate matter emissions from this baghouse, based on a design flow of 486 DSCFM (830 ACFM), shall not exceed:

lb/hr	Ton/yr	Standard
0.13	0.56	0.03 grains/dscf

[Rule 62-296.711(2)(b), F.A.C.]

Test Methods and Procedures

{Permitting note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

F.4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard; 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_2O 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.
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. This emissions unit is also subject to conditions contained in **Subsection K. Common Conditions.**

Subsection G. This section addresses the following emissions units.

E.U. ID No.	Brief Description
-010	Units 5 and 6 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 No. 1 with baghouse, pugmill, and truck loading. 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. In addition, fly ash from F. J. Gannon Station Units 1-4 Fly Ash Silo No. 2 may be routed via gravity flow to the pugmill where it is "conditioned" by wetting with water and gravity fed into open bed trucks. The fly ash is then transported to an off-site consumer. Fly ash may also be conveyed from tanker trucks to Fly Ash Silo No. 1 and from Fly Ash Silo No. 1 to Fly Ash Silo No. 2. 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: These emissions units are regulated under Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operation; and, 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 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.}

G.2. Visible Emission. Visible emissions shall not exceed 5% opacity.
[Rule 62-296.711(2)(a), F.A.C.]

G.3. Particulate Matter. Total allowable particulate matter emissions based on a design flow rate of 11,300 ACFM shall not exceed 2.9 pounds/hour, 12.7 tons/year; and, 0.03 grains/dscf.
[Rule 62-296.711(2)(b), F.A.C.]

Test Methods and Procedures

{Permitting note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

G.4.1. Test the emissions from the fly ash silo/baghouse for particulate matter and visible emissions each federal fiscal year (October 1 – September 30).
[Rule 62-297.310, F.A.C.]

G.4.2. Test the emissions from truck loading for visible emissions each federal fiscal year (October 1 – September 30). 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, 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 No. 1
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 tons/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. 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 fly ash silo/baghouse compliance tests shall be conducted under the following conditions:

A. The conveyance blower shall 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 shall be operational during tests.
C. All fly ash shall be directed to the silo, no re-injection of fly ash to the boiler system will occur during the tests.
D. Both boilers shall be operational during the tests.

[Rule 62-4.070(3), F.A.C.]

G.7. These emissions units are also subject to conditions contained in **Subsection K. Common Conditions.**

Subsection H. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
-011	Units 1-4 Fly Ash Silo (No. 2) with baghouse

For the operation of F.J. Gannon Station Units 1-4 Fly Ash Silo No. 2 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. In addition, fly ash from silo No. 2 may be routed to the pugmill at F. J. Gannon Station Silo No. 1 where it is "conditioned" by wetting with water and gravity fed into open bed trucks. The fly ash in the silo is gravity fed by tubing into enclosed tanker trucks for transport to an off-site consumer. Fly ash may also be conveyed from tanker trucks to Fly Ash Silo No. 2 and from Fly Ash Silo No. 2 to Fly Ash Silo No. 1. 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; and, Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter.}

The following specific conditions apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

H.1. Permitted Capacity. The maximum permitted operation rate is 14.5 ton/hour.
[Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: The attached Table 1-1, Summary of Air Pollution Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

H.2. Visible Emission. Visible emissions shall not exceed 5% opacity.
[Rule 62-296.711(2)(a), F.A.C.]

H.3. Particulate Matter. Total allowable particulate matter emissions based on a design flow rate of 4,696 ACFM shall not exceed 1.2 pounds/hour, 5.3 tons/year, and, 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 for particulate matter and visible emissions each federal fiscal year (October 1 – September 30).

[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 tons/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. 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. This emissions unit is also subject to conditions contained in **Subsection K. Common Conditions.**

Subsection I. This section addresses the following emissions units.

E.U. ID No.	Brief Description
-013 thru -018	Units Nos. 1-6 Fuel Bunkers with Roto-Clones

For the operation of the F.J. Gannon Station Units 1-6 fuel bunkers with exhaust fan/cyclone collectors (Roto-Clones) controlling dust emissions from each unit's respective bunker, two moving transfer stations via their respective conveyor belts route fuel through enclosed chutes to each of the six bunkers. Fuel bunkers Nos. 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. Fuel 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 fuel bunker via a hopper and return line. Units 1-6 fuel bunkers are situated in a west to east fashion. Unit 1 fuel bunker is located furthest to the west and Unit No. 6 fuel bunker furthest to the east.

{Permitting note: These emissions units are 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 fuel bunkers shall not exceed 0.99 ton/year. Also, the maximum allowable particulate matter emission rate from each of the six fuel bunkers shall not exceed 0.19 pound/hour.
[Rule 62-296.700(2)(c), F.A.C.]

I.3. Visible Emissions. Visible emissions from each of the six fuel 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 two of the six fuel bunkers for particulate matter and visible emissions each federal fiscal year (October 1 – September 30) so that over a three year period all six coal bunkers will have been tested.
[Rule 62-297.310, F.A.C. and AO29-250139]

Monitoring of Operations

I.5. 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	Units 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. Hours of Operation. These emissions units are allowed to operate continuously, i.e., 8,760 hours/year.
[Rules 62-4.160(2) and 62-210.200, F.A.C., (PTE)]

Emission Limitations and Standards

{Permitting note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposed only. This table does not supersede any of the terms or conditions of this permit}

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

J.2. Particulate Matter. Particulate matter emissions from each unit shall not exceed 0.1 pound 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 emissions 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 an emissions unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.
[Rule 62-210.700(3), F.A.C.]

J.4. Sulfur Dioxide (SO_2) Compliance Plan.

a. Sulfur dioxide (SO_2) emissions from each unit shall not exceed the interim limits specified below.

Calendar Year	Station-wide SO_2 Limit Tons per hour (24-hour Average (midnight to midnight))	Basis for Station-wide SO_2 Limit
2001	11.5	Equivalent to 1.9 lbs/MMBTU multiplied by the existing station-wide heat input in MMBTU/hour.
2002	10.3	Equivalent to 1.7 lbs/MMBTU multiplied by the existing

		station-wide heat input in MMBTU/hour.
2003 *	10.3	Equivalent to 1.7 lbs/MMBTU multiplied by the existing station-wide heat input in MMBTU/hour.
2003 **	**	Equivalent to 1.7 lbs/MMBTU multiplied by the existing station-wide heat input, less any Unit(s) shutdown due to repowering, in MMBTU/hour.
2004 **	**	Equivalent to 1.7 lbs/MMBTU multiplied by the existing station-wide heat input, less any Unit(s) shutdown due to repowering, in MMBTU/hour.

Notes:

All Gannon coal-fired boilers will be removed from service by December 31, 2004.

* Limits applicable to the portion of the year prior to the repowering of any unit(s).

** Limits applicable to the portions of the year following the repowering of any unit(s). The station-wide heat input used in the above equations will be based on the total of the coal-fired boilers remaining after each stage of repowering at the following MMBTU/Hour rates: Boiler No. 1 = 1257; Boiler No. 2 = 1257; Boiler No. 3 = 1599; Boiler No. 4 = 1876; Boiler No. 5 = 2284; Boiler No. 6 = 3798.

b. In addition, the SIP SO_2 emission limits that cover the Unit Nos. 1-6 Fossil Fuel-Fired Steam Generators at Gannon Station shall not be exceeded:

2.4 lbs/MMBTU (individual unit on a weekly average basis); and,
10.6 tons/hour (station-wide cap on a weekly average basis).

[Rules 62-296.405(1)(c)2.a., 62-204.220(1), 62-204.240(1), 62-4.070(3)&(5), and 62-213.440, F.A.C.]

J.5. Not federally enforceable. Sulfur Dioxide - Sulfur Content. The sulfur content of the new No. 2 fuel oil shall not exceed 0.5 percent, by weight.
[Requested in initial Title V permit application received June 14,1996; and, AO29-252615]

J.6. Visible Emissions. Visible emissions shall not exceed 20 percent opacity, except for one six-minute period per hour during which opacity shall not exceed 27 percent. Emissions units governed by this visible emissions limit shall compliance test for particulate matter emissions annually and as otherwise required by Chapter 62-297, F.A.C.
[Rule 62-296.405(1)(a), F.A.C.]

J.7. Visible Emissions - Soot Blowing and Load Change. Visible emissions from each emissions unit shall not exceed 60 percent opacity, except for up to 4 six-minute periods, 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 emissions unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the emissions 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.]

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 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.]

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_2 limits specified in condition J.4. shall be demonstrated using a continuous emissions monitor.**

{Permitting Note: The permittee has elected to demonstrate compliance by means of a continuous emissions monitoring system (CEMS). In addition to any other requirements associated with the operation and maintenance of these CEMS (i.e., Acid Rain requirements), operation of the CEMS shall be in accordance with the requirements listed below. The annual calibration RATA associated with these CEMS may be used in lieu of the required annual EPA Reference Method 6, as long as all of the requirements of Rule 62-297.310, F.A.C., are met (i.e., prior test notification, proper test result submittal, etc.).}
[Rule 62-296.405(1)(e)3., F.A.C.]

J.12.a. Sulfur Dioxide CEMS. Continuous SO_2 emission monitoring 24-hour averages are required to demonstrate compliance with the standards (limits) 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_2 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_2 emissions compliance by the temporary use of a spare SO_2 emissions monitor. The spare, previously calibrated, SO_2 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, either:

(a) in accordance with the EPA performance specifications listed below. These Performance Specifications are contained in 40 CFR 60, Appendix B, and are adopted by reference in Rule 62-204.800, F.A.C.

(1) Performance Specification 1--Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources.

(2) Performance Specification 2--Specifications and Test Procedures for SO_2 Continuous Emission Monitoring Systems in Stationary Sources.

(3) Performance Specification 3--Specifications and Test Procedures for CO_2 Continuous Emission Monitoring Systems in Stationary Sources. Or,

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

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

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 (limits) in the event that the SO_2 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.
2) 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_2 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. Visible Emissions. 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. DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.

2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.

b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.
[Rules 62-297.310 and 62-297.401, F.A.C.]

J.16. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

J.17. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

J.18. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

J.19. Applicable Test Procedures.
(a) Required Sampling Time.
1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached.
(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 62-297.310(4), F.A.C.]

J.20. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6),.C.]

J.21. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
(a) General Compliance Testing.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; and, 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, or some other comparable method (i.e, composite as-delivered fuel sample analysis).
[Rule 62-213.440, F.A.C.]

J.23. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

Continuous Monitoring Requirements

J.24. Continuous Monitors. The permittee shall calibrate, operate and maintain continuous emissions monitoring systems (CEMS) for monitoring opacity, SO_2 and CO_2.
[Rules 62-213.440 and 62-296.405(1)(f)1., F.A.C.]

{Permitting Note: NO_X 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.6.** and **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 62-296.405(1)(g) and 62-213.440(1)(b)2.b., 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 calendar quarter.
[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. Malfunction Reporting. In case of excess emissions resulting from malfunctions, Tampa Electric Company shall notify the Environmental Protection Commission of Hillsborough County in accordance with 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.]

Reasonable Assurances

J.31. <reserved>

J.32. Visible emissions testing shall be conducted simultaneously with particulate matter testing unless visible emissions testing is not required. In situations where visible emissions testing is not possible during particulate matter testing (i.e., nighttime, overcast days), independent visible emissions testing may be performed at a later date within but not more than 5 days. Reasons for non-simultaneous testing must be provided in the test report.
[Rule 62-4.070(3), F.A.C.]

Miscellaneous Conditions

J.33. Boiler Cleaning Waste. The owner or operator is allowed to inject nonhazardous boiler chemical cleaning waste, generated on-site, into each boiler during normal operation as a routine maintenance procedure. The following conditions shall apply:

a. Quantity Limitation: The input rate per boiler shall not exceed:
   (1) 50 gal/min
   (2) 960,000 gallons during any 12 consecutive months.

b. Operating Requirements: Boiler chemical cleaning waste that is deemed nonhazardous shall be burned only at normal source operating temperatures. Nonhazardous boiler chemical cleaning waste shall not be burned during periods of startup or shutdown.

c. Testing Requirements: The owner or operator shall sample and analyze each batch of boiler chemical cleaning waste to be burned pursuant to 40 CFR 262.11. If the waste is determined to be hazardous, it will be managed in accordance with all applicable hazardous waste controls under 40 CFR 262.34, 40 CFR 265 Subpart I and 40 CFR 268.

d. Record Keeping Requirements: The owner or operator shall obtain, make, and keep the following records related to the use of boiler chemical cleaning waste in a form suitable for inspection at the facility by the Department:

   (1) The gallons of boiler chemical cleaning waste burned each month in each boiler.

   (2) The total gallons of boiler chemical cleaning waste burned in the preceding consecutive 12-month period in each boiler.

   (3) Results of analyses required above for each boiler.

e. Reporting Requirements: 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 in each boiler during the previous calendar year.

[Rule 62-4.070(3), F.A.C.; and, 40 CFR 262.11]

J.34. Used Oil. Burning of on-specification used oil is allowed in these units in accordance with all other conditions of this permit and the following conditions:

a. On-specification Used Oil Emissions Limitations: These emissions units are permitted to burn on-specification used oil, which contains a PCB concentration of less than 50 ppm. On-specification used oil is defined as used oil that meets the specifications of 40 CFR 279 - Standards for the Management of Used Oil, listed below. "Off-specification" used oil shall not be burned. Used oil which fails to comply with any of these specification levels is considered "off-specification" used oil.

CONSTITUENT/PROPERTY	ALLOWABLE LEVEL
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum

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

b. Quantity Limitation: These emissions units are permitted to burn "on-specification" used oil that is generated by TEC in the production and distribution of electricity, not to exceed 1,000,000 gallons during any consecutive 12 month period.
c. PCB Limitation: Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
d. Operational Requirements: On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.
e. Testing Requirements: 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 40 CFR 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 40 CFR 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 in each unit.
(2) The total gallons of on-specification used oil burned in the preceding consecutive 12-month period month in each unit.
(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, with the Annual Operation Report form, the analytical results and the total amount of on-specification used oil burned in each unit 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]

Subsection K. Common Conditions.

	Brief Description
-009	Unit 4 Economizer Ash Silo with Baghouse
-010	Units 5 and 6 Fly Ash Silo with Baghouse (Fly Ash Silo No. 1)
-011	Units 1-4 Fly Ash Silo with Baghouse (Fly Ash Silo No. 2)
-012	Pugmill and Truck Loading
-013	Unit No. 1 Fuel Bunker with Roto-Clone
-014	Unit No. 2 Fuel Bunker with Roto-Clone
-015	Unit No. 3 Fuel Bunker with Roto-Clone
-016	Unit No. 4 Fuel Bunker with Roto-Clone
-017	Unit No. 5 Fuel Bunker with Roto-Clone
-018	Unit No. 6 Fuel 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. These emissions units 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 Chapter 62-297, F.A.C. The minimum requirements for stationary point source sampling and reporting shall be in accordance with Chapter 62-297, 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.
[Rules 62-297.310(7)(a)4. and 62-4.070(3), F.A.C.]

K.4. <reserved>

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 Chapter 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.]

K.9. Applicable Test Procedures.
(a) Required Sampling Time.
1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached.
(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 62-297.310(4), F.A.C.]

K.10. 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.]

K.11. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
[Rule 62-297.310(7), F.A.C.]

K.12. 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.]

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

A.1. The Phase II permit applications, the Phase II NO_X compliance plans and the Phase II NO_X averaging plans 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)4., F.A.C., received 12/22/99 (signed 12/20/99).
b. DEP Form No. 62-210.900(1)(a)5., F.A.C., received 12/22/99 (signed 12/20/99).

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

A.2. Sulfur dioxide (SO_2) allowance allocations and nitrogen oxide (NO_X) requirements for each Acid Rain unit is as follows:

E.U. ID No.	EPA ID	Year	2001	2002	2003	2004	2005
-001	GB01	SO_2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	3842*	3842*	3842*	3842*	3842*
-002	GB02	SO_2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	4425*	4425*	4425*	4425*	4425*

E.U. ID No.	EPA ID	Year	2001	2002	2003	2004	2005
-003	GB03	SO_2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	5664*	5664*	5664*	5664*	5664*
	GN03	NOx limit**	Note: The applicable emission limitation, under 40 CFR 76.6(a)(2), is **0.86** lb/mmBtu for cyclone boilers. **A.2.1.** Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves four (4) NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the 2001, 2002, 2003 and 2004. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.89** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than 8,550,000** MMBtu. Also, see Additional Requirements 1 and 2 below.				
-004	GB04	SO_2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	**6223***	**6223***	**6223***	**6223***	**6223***
	GN04	NOx limit**	Note: The applicable emission limitation, under 40 CFR 76.6(a)(2), is **0.86** lb/mmBtu for cyclone boilers. **A.2.2.** Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves four (4) NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the 2001, 2002, 2003 and 2004. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.82** lb/MMBtu. In addition, this unit shall not have an annual heat input **less than 7,550,000** MMBtu. Also, see Additional Requirements 1 and 2 below.				

E.U. ID No.	EPA ID	Year	2001	2002	2003	2004	2005
-005	GB05	SO_2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	6537*	6537*	6537*	6537*	6537*
	GN05	NOx limit**	Note: The applicable emission limitation, under 40 CFR 76.6(a)(2), is **0.84** lb/mmBtu for wet bottom boilers. **A.2.3.** Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves four (4) NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the 2001, 2002, 2003 and 2004. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.76** lb/MMBtu. In addition, this unit shall not have an annual heat input **less than 10,000,000** MMBtu. Also, see Additional Requirements 1 and 2 below.				
-006	GB06	SO_2 allowances, under Table 2 3 or 4 of 40 CFR Part 73	10081*	10081*	10081*	10081*	10081*
	GN06	NOx limit**	Note: The applicable emission limitation, under 40 CFR 76.6(a)(2), is **0.84** lb/mmBtu for wet bottom boilers. **A.2.4.** Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves four (4) NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the 2001, 2002, 2003 and 2004. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **1.10** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than 27,000,000** MMBtu. Also, see Additional Requirements 1 and 2 below.				

*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.
** Based on the Phase II NO_X applications.

Additional Requirements

1. Under the plan (NO_X Phase II averaging plan), the actual Btu-weighted annual average NO_X emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_X emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.
2. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

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. Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, 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. 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 July 1, 1998.

Appendix F, Ambient Air Quality Compliance Plan for SO_2 Emissions

Tampa Electric Company
F.J. Gannon Station

PROPOSED Permit No.: 0570040-002-AV

E.U. ID No.	Brief Description
-001 thru –006	Units Nos. 1-6 Fossil Fuel-Fired Steam Generators

The SIP SO_2 limits that cover the Unit Nos. 1-6 Fossil Fuel-Fired Steam Generators at Gannon Station are as follows:

2.4 lbs/MMBTU (individual unit on a weekly average basis);
10.6 tons/hour (station-wide cap on a weekly average basis).

During the initial Title V permitting of Gannon Station, the FDEP and Tampa Electric Company (TEC) performed ambient air pollution dispersion modeling. This modeling calculated exceedances of the state of Florida 24-hour and 3-hour SO_2 ambient air quality standards of 260 ug/m^3 and 1,300 ug/m^3 respectively, using the existing allowable SO_2 limits.

Based on these conclusions TEC evaluated possible alternatives to the current operations at Gannon Station to eliminate the modeled SO_2 exceedances. These evaluations centered around reducing the sulfur content of the fuel, raising one or more of the existing stacks, or a combination of both. Ultimately, a decision to raise the existing stacks on Units 5 & 6, along with accepting a new limit on SO_2 on a 24-hourly average basis of approximately 11.5 tons/hour, was determined to be the best coarse of action. To this end, an air construction permit application for the stack extension project was submitted in October 1998. The application is currently under a waiver.

As a result of the Consent Final Judgement (DEP vs. TECO) dated December 6, 1999 and the Consent Decree (U.S. vs. TECO) dated February 29, 2000, Gannon Station will be repowered using natural gas fired combustion turbines with oil backup and will cease burning coal by January 1, 2005. The repowered facility will be named Bayside.

Based on the short life remaining for the existing Gannon Station coal-fired units, the strategy to extend the stacks to remove the modeled ambient SO_2 exceedances is no longer the best strategy. For this short period of time, it is also unreasonable to make any significant modifications to the units, or the fuel contracts, necessary to reduce the SO_2 levels needed to show no modeled ambient SO_2 exceedances with the existing operations. In light of the foregoing, the interim SO_2 limits specified in permit condition number J.4. shall apply.

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

Tampa Electric Company	**PROPOSED 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. Internal combustion engines in boats, aircraft and vehicles used for transportation of passengers or freight.
2. Cold storage refrigeration equipment, except for any such equipment located at a Title V source using an ozone-depleting substance regulated under 40 CFR Part 82.
3. Vacuum pumps in laboratory operations.
4. Equipment used for steam cleaning.
5. Belt or drum sanders having a total sanding surface of five square feet or less and other equipment used exclusively on wood or plastics or their products having a density of 20 pounds per cubic foot or more.
6. Equipment used exclusively for space heating, other than boilers.
7. Laboratory equipment used exclusively for chemical or physical analyses.
8. Brazing, soldering or welding equipment.
9. One or more emergency generators located within a single facility provided:
    a. None of the emergency generators is subject to the Federal Acid Rain Program; and
    b. Total fuel consumption by all such emergency generators within the facility is limited to 32,000 gallons per year of diesel fuel, 4,000 gallons per year of gasoline, 4.4 million standard cubic feet per year of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.
10. One or more heating units and general purpose internal combustion engines located within a single facility provided:
    a. None of the heating units or general purpose internal combustion engines is subject to the Federal Acid Rain Program; and
    b. Total fuel consumption by all such heating units and general purpose internal combustion engines within the facility is limited to 32,000 gallons per year of diesel fuel, 4,000 gallons per year of gasoline, 4.4 million standard cubic feet

per year of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.

11. Fire and safety equipment.
12. Storage Tanks
13. Degreasing units using heavier-than-air vapors exclusively, except any such unit using or emitting any substance classified as a hazardous air pollutant.
14. Turbine vapor extractors
15. Architectural coatings.
16. Surface coating operations utilizing only coatings containing 5.0 percent or less VOCs, by volume.
17. Evaporation of non-hazardous boiler chemical cleaning waste which was generated on site.
18. No. 2 fuel Oil Storage Tanks
19. Vehicle Refueling Operations
20. Molten Sulfur Storage Tanks
21. Evaporation of Nonhazardous Boiler Chemical Cleaning Waste.

Appendix H-1, Permit History/ID Number Changes

Tampa Electric Company
F. J. Gannon

PROPOSED Permit No.: 0570040-002-AV
Facility ID No.: 0570040

Permit History (for tracking purposes):

E.U. ID No	Description	Permit No.	Issue Date	Expiration Date	Extended Date[1,2]	Revised Date(s)
-001	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		
-003	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		
	WDF Firing	0570040-008-AC	2/16/99	12/31/99		
	WDF Firing (re-issued)	0570040-011-AC	03/07/00	02/28/02		
-004	Unit No. 4-Fossil Fuel-Fired Steam Generator	AO29-255208	12/2/94	10/14/99		
		AC29-41940	8/7/81			
-005	Unit No. 5-Fossil Fuel-Fired Steam Generator	AO29-203511	1/1/92	1/1/97		
-006	Unit No. 6-Fossil Fuel-Fired Steam Generator	AO29-203512	2/15/92	2/15/97		
-007	Combustion Turbine	AO29-252615	8/31/94	8/31/99		
-008	Fuel Yard	AO29-216480	4/23/93	9/12/97		
		AC29-61276	4/12/83	12/31/84		
	Fuel Yard Expansion	0570040-006-AC	2/5/99	10/15/00		
	Crusher House	0570040-007-AC	2/5/99	12/31/99		
	Crusher House (re-issued)	0570040-010-AC	3/21/00	12/31/00		
-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
-011	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 Fuel Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-014	Unit 2 Fuel Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-015	Unit 3 Fuel Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-016	Unit 4 Fuel Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-017	Unit 5 Fuel Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-018	Unit 6 Fuel Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95

Appendix H-1, Permit History/ID Number Changes

Tampa Electric Company
F. J. Gannon

PROPOSED Permit No.: 0570040-002-AV
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}

file: TECO Gannon & Big Bend copy: Cindy

Sheplak, Scott

From: Koerner, Jeff
Sent: Tuesday, February 27, 2001 2:36 PM
To: Shannon Todd (E-mail); Patrick Shell (E-mail); Jerry Campbell (E-mail); Dianna Lee (E-mail); Kissel, Gerald
Cc: Linero, Alvaro; Sheplak, Scott
Subject: TECO Screening Operation and Big Bend Slag Material

To all:

On February 21st, I teleconferenced with TECO, HEPC, and the SWD Office. I summarized the issues for Al Linero (New Source Review) and Scott Sheplak (Title V). Our collective comments follow.

1. Gannon Screening Operation: TECO wants to dredge an on-site retention pond, screen the material, and sell it to Florida Crushed Stone (to be used as road base, concrete mix, sand blasting media, etc.). The material consists of fines washed from the coal piles and ESP ash. It will be dredged from the pond, dumped wet onto a 3" screen, and conveyed to a storage pile to await removal by truck. The screen is simply to separate large materials such as concrete chunks - there will be no crushing. Large materials will be hauled off to a landfill. Material will be kept wet while on site. It is estimated that there is approximately 250,000 tons of material that will take about 6 - 9 months to remove. TECO believes it has conservatively estimated that < 5 TPY of particulate matter will be emitted from this activity. HEPC and the SWD Office don't seem to have any real concerns as long as "reasonable precautions" are taken to prevent fugitive dust.

> Comments: From the information provided, we believe that this request for such a temporary operation could meet the requirements for a generic emissions unit exemption pursuant to Rule 62-210.300(3)(b), F.A.C. Based on the information provided, TECO could request an exemption by sending a letter to the Bureau of Air Regulation that: describes the activity, defines the reasonable precautions to prevent fugitive dust emissions, predicts the duration of the project, estimates emissions, and states that the activity is exempt from permitting pursuant to Rule 62-210.300(3)(b), F.A.C. If necessary, additional reasonable precautions could be worked out with the local and District offices. It would be unnecessary to reopen the existing Title V permit to include this activity, if exempt.

2. Big Bend Gasification "Slag": Big Bend Station supplies coal to the Polk Gasification Project. Apparently, the gasification process is not converting all of the carbon and is leaving a residual slag material that has a substantial heat content (3000 to 5000 BTU/lb). This material was being trucked back to the Big Bend Station and being fired in the coal boilers, approximately 210 TPD (dry). It sounded like this had been going on since 1997 until HEPC recently observed the slag material on site. It is very fine, which makes it difficult to control the fugitive emissions. TECO estimates that the fugitive particulate matter emissions are less than 3 TPY for material handling and storage. According to a report jointly published by TECO and DOE, the slag material is nonhazardous and nonleachable and is suitable for use as abrasives, roof material, industrial filler, concrete aggregate, or road base material. This report also mentions that the Polk site has the ability to store at least 2 1/2 years of accumulated material with a contingency to store an additional 2 1/2 years of material, if necessary. HEPC issued a Warning Letter requesting Big Bend to stop firing the slag material until the activity was reviewed and proper authorization obtained. TECO has been hauling away the slag to a landfill, which costs about $12,000 per day. HEPC and the District office believe that firing the material at Big Bend is a change in the method of operation and requires an air construction permit and a revision to the Title V permit.

> *Comments*: From the information provided, we also believe that firing the slag material was a change in the method of operation. Proper authorization should be requested through the permitting process. It will be necessary to compare the past actual emissions before the change to "future" actual emissions after the change in order to determine whether PSD significant emissions increase occurred. This analysis is complicated by several items: "future" actual operational data exists (and should be used); the primary purpose is to get rid of the slag material with a secondary purpose of providing heat input as a fuel; the slag material would replace a certain equivalent amount of coal; and TECO is a utility steam-electric generating facility that is allowed to predict future actual emissions increases related only to the change, exclusive of other causes such as increased demand for electricity. If the change in the method of operation resulted in PSD significant emissions increases, then a PSD permit is required from the New Source Review Section. If the change did not trigger PSD, then a minor source air construction permit is required. The minor source air construction permit could be processed independently from, or simultaneously with, the Title V revision depending on TECO's request. Currently, minor source air construction permits for utilities holding Title V permits are being processed by the Title V section. However, we request that the application be sent to the Bureau of Air Regulation so that we may expedite the request based on current work load. In the mean time, storage of the slag material on site at Big Bend could be adequately addressed in any settlement with HEPC.

Let me know if you have any questions.

Thanks!

Jeff Koerner
New Source Review Section