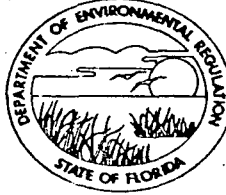


STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610



BOB GRAHAM
GOVERNOR

~~JACOB K. MARK~~
SECRETARY
Vicki Tschinkel
WILLIAM K. HENNESSEY
DISTRICT MANAGER

APPLICANT:

Tampa Electric Company
P.O. Box 111
Tampa, Fla. 33601

PERMIT/CERTIFICATION
NO. AO29-47727

COUNTY: Hillsborough
PROJECT: FFSG No. 6
Gannon Station

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and made a part hereof and specifically described as follows:

For the operation of a 3798 MMBTU/hr heat input steam generator No. 6 coal fired.

Located at Port Sutton Road, Tampa, Hillsborough County.

UTM: 17-360.0E and 3087.5N

Replaces Permit: AO29-12601

NEDS NO: 0040

Point ID: 06

Expires: January 25, 1987

BEST AVAILABLE COPY

PERMIT NO.: AO29-47727
APPLICANT: Tampa Electric Company

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions", and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate court action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.

3. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information: (a) a description of and cause of non-compliance; and (b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

4. As provided in subsection 403.087(6), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.111, F.S.

7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

8. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant, or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

SPECIFIC CONDITIONS

1. Test the emissions for the following pollutant(s) at intervals of 12 months from date of July 29, 1981 and submit a copy of test data to the District Engineer of this agency within fifteen days of such testing. [Chapter 17-2.700(2)]; F.A.C.]

(X)Particulates	(X)Sulfur Oxides*
()Fluorides	()Nitrogen Oxides
(X)Plume Density	()Hydrocarbons
	()Total Reduced Sulfur

*Fuel analysis is acceptable

2. Testing of emissions must be accomplished at approximately the rates as stated in the application. Failure to submit the input rates or operation at conditions which do not reflect actual operating conditions may invalidate the data [Chapter 403.161(1)(c), Florida Statutes].
3. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Chapter 17-4.14, F.A.C.
 - (A) Annual amount of materials and/or fuels utilized.
 - (B) Annual emissions (note calculation basis).
 - (C) Any changes in the information contained in the permit application.
4. Particulate emission limits for this unit is 0.1 lb TSP/MMBTU heat input per F.A.C. 17-2.650(2)(c)2.
5. Visible emissions are limited to a density of number 1 on the Ringelmann Chart (20 percent opacity) except that a shade as dark as No. 2 of the Ringelmann Chart (40% opacity) shall be permissible for no more than 2 minutes in any hour. [F.A.C. 17-2.600(5)(b)1].
6. Sulfur dioxide emissions are limited to 2.4 lbs. of SO₂ per million BTU heat input for this unit on a weekly average. A total of 10.6 tons per hour of SO₂ is a maximum emission from Units 1 through 6 at the Gannon Generating Station [F.A.C. 17-2.600(5)(b)3b(i)].
7. Operation and Maintenance Plan for Particulate Control F.A.C. 17-2.650
 - A. Control Equipment Data (Two Electrostatic Precipitators)
 1. Manufacturer: Research Cottrell, Inc.
 2. Model Name & No.: G.O. 3118
 3. Type: ESP
 4. Design Flow: 1350 KCFM
 5. Primary Voltage: 430-480V
 6. Primary Current: 241 Amps
 7. Secondary Voltage: 53.5 KV
 8. Secondary Current: 1.5 Amps
 9. Design Efficiency: 98.50%
 10. Pressure Drop: 1/2" water
 11. Static Pressure: 15" water
 12. Rapper Duration: Impact
 13. Rapper Frequency: 1/2 min
 14. Temperature: 290 F
 15. Stack Height: 306 Ft.
 16. No. of Compartments:

B. Process Parameters

1. MMBTU Input:	3798 (414 MW)
2. Fuel or Fuel Mix:	Pulverized Coal
3. TPH Burned:	151.4
4. TPH Ash Produced:	8.9 Max.
5. Steam Temp:	1000 F
6. Steam Press:	2600 psi
7. Steam Flow	2,700 MPPH
8. Air to Fuel Ratio:	

C. Inspection and Maintenance Schedules

1. Planned Major Outages:

Inspect exterior for loose insulation, corrosion, loose joints, and other defects.

Check for points of gas leakage (in or out).

Clean and lubricate access door hinges and test connections.

Inspect interior for items such as:

a. Check for possible leaks of oil, gas, or air at gasketed connections,

b. Check for corrosion of any component,

c. Check for broken or misaligned wires, plates, insulators, rappers, etc.,

d. Check high-voltage switch gear and interlocks.

e. Clean all insulators and check for hairline cracks or tracking,

f. Check expansion joints,

Check for signs of hopper leakage, reentrainment of particulate, and poor gas distribution.

Check for dust buildup in inlet and outlet flues.

Check for dust buildup in hoppers.

2. Weekly activities:

Inspect penthouse fans and air filters.

Observe operation of all rappers and vibrators for lift, intensity, and sequence.

Check control sets for internal dust buildup.

3. Daily activities:

Inspect system controls (voltage and amperage).

Check ash removal systems.

Log ESP parameters for each T-R set:

Primary voltage

Primary current

Secondary current

Spark rate

Continuously monitor excess air and steam flow.

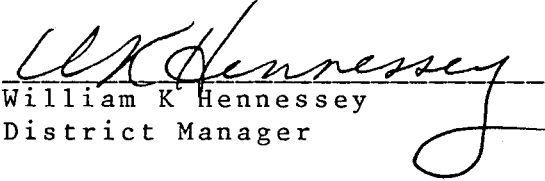
Applicant: Tampa Electric Company
Page 5 of 5 of Permit No. A029-47727

D. Records

Records of inspection, maintenance, and performance parameter data shall be retained for a minimum of two years and shall be made available to the Department upon request. [F.A.C. 17-2.650(2)(g)5].

Revised Provisos
Issued this 11th day of March,
1982

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION



William K. Hennessey
District Manager

EXPIRATION DATE: January 25, 1987

SPECIFIC CONDITIONS

1. Test the emissions for the following pollutant(s) at intervals of 12 months from date of July 29, 1981 and submit a copy of test data to the District Engineer of this agency within fifteen days of such testing. [Chapter 17-2.700(2)], F.A.C.]

(X)Particulates	(X)Sulfur Oxides*
()Fluorides	()Nitrogen Oxides
(X)Plume Density	()Hydrocarbons
	()Total Reduced Sulfur

*Fuel analysis is acceptable

2. Testing of emissions must be accomplished at approximately the rates as stated in the application. Failure to submit the input rates or operation at conditions which do not reflect actual operating conditions may invalidate the data [Chapter 403.161(1)(c), Florida Statutes].
3. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Chapter 17-4.14, F.A.C.
 - (A) Annual amount of materials and/or fuels utilized.
 - (B) Annual emissions (note calculation basis).
 - (C) Any changes in the information contained in the permit application.
4. Particulate emission limits for this unit is 0.1 lb TSP/MMBTU/hr heat input per F.A.C. 17-4.650(2)(c)2.
5. Visible emissions are limited to a density of number 1 on the Ringelmann Chart (20 percent opacity) except that a shade as dark as No. 2 of the Ringelmann Chart (40% opacity) shall be permissible for no more than 2 minut one hour. [F.A.C. 17-2.600(5)(a)1].
6. Sulfur dioxide emissions are limited to 2.4 lbs. of SO₂ per million BTU heat input for this unit on a weekly average. A total of 10.6 tons per hour of SO₂ is a maximum emission from Units 1 through 6 at the Gannon Generating Station [F.A.C. 17-2.600(5)(b)3b(i)].
7. Operation and Maintenance Plan for Particulate Control F.A.C. 17-2.650
 - A. Control Equipment Data (Two Electrostatic Precipitators)
 1. Manufacturer: Research Cottrell, Inc.
 2. Model Name & No.: G.O. 3118
 3. Type: ESP
 4. Design Flow: 1350 KCFM
 5. Primary Voltage: 430-480V
 6. Primary Current: 241 Amps
 7. Secondary Voltage: 53.5 KV
 8. Secondary Current: 1.5 Amps
 9. Design Efficiency: 98.50%
 10. Pressure Drop: 1/2" water
 11. Static Pressure: 15" water
 12. Rapper Duration: Impact
 13. Rapper Frequency: 1/2 min
 14. Temperature: 290 F
 15. Stack Height: 306 Ft.
 16. No. of Compartments:

Applicant: Tampa Electric Company
Page 4 of 4 of Permit No. 47727

B. Process Parameters

- | | |
|-----------------------|-----------------|
| 1. MMBTU Input: | 3798 (414 MW) |
| 2. Fuel or Fuel Mix: | Pulverized Coal |
| 3. TPH Burned: | 151.4 |
| 4. TPH Ash Produced: | 8.9 Max. |
| 5. Steam Temp: | 1000 F |
| 6. Steam Press: | 2600 psi |
| 7. Steam Flow | 2,700 MPPH |
| 8. Air to Fuel Ratio: | |

C. Inspection and Maintenance Schedules

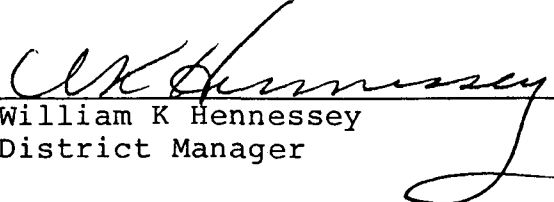
1. Planned Outages: non peak load periods (Spring & Fall)
2. Weekly Activities:
 - Inspect penthouse fan filters
 - Observe Operation of all rappers & vibrators for lift, intensity, and sequence
3. Daily Activities:
 - Inspect System Controls (voltage and amperage)
 - Check operation of inlet duct distribution plate rappers and insulator cleanliness
 - Log ESP parameters
 - Primary voltage from control room
 - Primary current from control room
 - Secondary current from control room
 - Spark rate from control room
 - Excess air is continuously monitored
 - Steam flow is monitored continuously

D. Records

Records of inspection, maintenance, and performance parameter data shall be retained for a minimum of two years and shall be made available to the Department upon request. [F.A.C. 17-2.650(2)(g)5].

Issued this 27th day of January,
1982.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION



William K Hennessey
District Manager

EXPIRATION DATE: January 25, 1987