Florida Department of Environmental Regulation
Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347
Lawton Chiles, Governor 813-623-5561 Carol M. Browner, Secretary

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT ISSUANCE

CERTIFIED MAIL

Mr. Lynn F. Robinson
Environmental Planning
Tampa Electric Company
Post Office Box 111
Tampa, FL 33601-0111

DER File No.: AO29-202998
County: Hillsborough

Enclosed is Permit Number AO29-202998 to operate a 411 MMBTU/hr. steam generator designated as Unit #4, issued pursuant to Section 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee 32399-2400, within fourteen (14) days of receipt of this permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

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

(f) A statement of which rules or statutes petitioner contends required reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice, in the Office of General Counsel at the above address of the Department. Failure to petition within the allotted time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to: A029-202997 HK (6) A029-203002

MR MARK J HORNICK
TAMPA ELECTRIC CO
PO BOX 111
TAMPA FL 33601 0111

4. Article Number
P 149 931 638

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X

7. Date of Delivery
DEC 23 1991

8. Addressee's Address *(ONLY if requested and fee paid)*
DEC 26 1991
SOUTHWEST DISTRICT
TAMPA

PS Form 3811, Apr. 1989 ★U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in t[illegible] "RETURN TO" Space on the reverse side. Failure to do [illegible] will prevent this card from being returned [illegible]. The return receipt fee will provide you the name of [illegible]rson delivered to and the date of delivery. [illegible] additional fees the following services are available. C[illegible]t postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to: A029-202997 HK (6) A029-203002

MR LYNN F ROBINSON
MANAGER ENV PLANNING
TAMPA ELECTRIC CO
PO BOX 111
TAMPA FL 33601 0111

4. Article Number
P 149 931 637

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X

7. Date of Delivery
DEC 23 1991

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form 3811, Apr. 1989 ★U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

P 149 931 637

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

MR LYNN F ROBINSON
MANAGER ENV PLANNING
TAMPA ELECTRIC CO
PO BOX 111
TAMPA FL 33601 0111

Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date TECO A029-202997 " " -202998 " " -202999 " " -203000 " " -203001 " " -203002	

PS Form 3800, June 1985

P 149 931 638

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

MR MARK J HORNICK
TAMPA ELECTRIC CO
PO BOX 111
TAMPA FL 33601 0111

Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date TECO A029-202997 " " -202998 " " -202999 " " -203000 A029-203001 " -203002	

PS Form 3800, June 1985

Executed in Tampa, Florida

Sincerely,

J. Harry Kerns

J. Harry Kerns, P.E.
District Air Engineer

JHK/SKW/bm

Attachment:

cc: Environmental Protection Commission
of Hillsborough County
Mark J. Hornick, P.E., Tampa Electric Company

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on DEC 1 9 1991 to the listed persons.

FILING AND ACKNOWLEDGEMENT FILED, on this date, pursuant to Section 120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Marilyn Quispe
Clerk

DEC 1 9 1991
Date

Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347

Lawton Chiles, Governor 813-623-5561 Carol M. Browner, Secretary

PERMITTEE:
Tampa Electric Company
Post Office Box 111
Tampa, FL 33601-0111

PERMIT/CERTIFICATION
Permit No: AO29-202998
County: Hillsborough
Expiration Date: 12/01/96
Project: Hooker's Point
Station Unit #4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the department and made a part of hereof and specifically described as follows:

For the operation of a 411 MMBTU/hr. steam generator designated as Unit #4. This front firing type boiler was manufactured by Babcock and Wilcox Corporation and is fired on No. 6 fuel oil. The unit has no add-on pollution control equipment. Air pollutant emissions are controlled by efficient combustion of the fuel. Unit Nos. 3 and 4 share the same stack exhaust (#2 stack), the southern most stack on the west side of the building.

Location: At the foot of Hemlock Street, Tampa

UTM: 17-358.0 E 3091.0 N NEDS NO: 0038 Point ID: 04

Replaces Permit No.: AO29-125689

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.

2. Except as provided in Specific Condition No. 5, the maximum allowable particulate matter emission rate from this source shall not exceed 0.1 pounds per MMBtu heat input over a two (2) hour average. [Rule 17-2.650(2)(c)2.b.(i), F.A.C.]

3. Except as provided in Specific Condition No. 5, visible emissions shall not exceed 20% opacity except for one two-minute period per hour during which opacity shall not exceed 40%. [Rules 17-2.650(2)(c)2.b.(ii) and 17-2.600(5)(a)1., F.A.C.]

4. The maximum allowable sulfur dioxide emission rate from this source shall not exceed 1.1 pounds per MMBtu heat input. [Rule 17-2.600(5)(a)3.a.(v), F.A.C.]

5. Excess Emissions:

A. Excess emissions from existing fossil fuel steam generators resulting from startup or shutdown are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized. [Rule 17-2.250(2), F.A.C.]

B. Excess emissions resulting from boiler cleaning (sootblowing) and load change are permitted provided that the duration of such excess emissions shall not exceed 3 hours in any 24-hour period and visible emissions shall not exceed 60% opacity, and providing (a) best operational practices to minimize emissions are adhered to and (b) the duration of the excess emissions are minimized. Particulate matter emissions shall not exceed an average of 0.3 pounds per MMBtu heat input during the 3-hour period of excess emissions allowed by part B. of this specific condition. [Rule 17-2.250(3), F.A.C.]

C. Excess emissions resulting from malfunctions* are permitted provided (a) best operational practices to minimize emissions are adhered to and (b) the duration of excess emissions are minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department of Environmental Regulation for longer duration. [Rule 17-2.250(1), F.A.C.]

D. 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 is prohibited. [Rule 17-2.250(4), F.A.C.]

SPECIFIC CONDITIONS: (continued)

* In case of excess emissions resulting from malfunctions, Tampa Electric Company shall notify the Environmental Protection Commission of Hillsborough County in accordance with Rule 17-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested. [Rule 17-2.250(6), F.A.C.]

6. Test the emissions for the following pollutant(s) at intervals of 12 months from May 10, 1991 (± 90 days)_ and submit 2 copies of test data to the Air Section of the Environmental Protection Commission of Hillsborough County office and the Florida Department of Environmental Regulation within forty-five days of such testing. Testing procedures shall be consistent with the requirements of Rule 17-2.700, F.A.C.:

(X) Particulates** (X) Sulfur Dioxide*
(X) Opacity**

* Compliance with the sulfur dioxide emission limits may be demonstrated by calculating SO_2 emissions based on the sulfur content of the fuel in lieu of stack sampling as provided in Rule 17-2.700, F.A.C. An analysis of the fuel oil shall be submitted with the stack test report. The analysis shall be in accordance with ASTM D4239-85 to determine sulfur content and contain as a minimum the Btu content (Btu/gal.), the density (lbs./gal.) and the sulfur content (% by weight).

** Compliance with the particulate matter and opacity limits shall be demonstrated under both sootblowing and non-sootblowing operating conditions. A test under sootblowing conditions which demonstrates compliance with a non-sootblowing emission limitation will be accepted as proof of compliance with that non-sootblowing emission limitation.

7. Approved compliance testing of emissions must be conducted within ± 10% of the maximum permitted heat input rate (411 MMBtu/hr.), when practicable. Testing may be conducted at less than 90% of the maximum permitted heat input rate; however, if so, the maximum permitted heat input rate is automatically amended to be equal to the test heat input rate. If the maximum permitted heat input rate for this source is exceeded by more than 10%, compliance testing shall be performed within 60 days of initiation of the higher rate and the results of the tests shall be submitted to the Department of Environmental Regulation and the Environmental Protection Commission of Hillsborough County. The Environmental Protection Commission of Hillsborough County may, for good cause shown, grant an extension of the 60-day time limit on a case by case basis. Acceptance of said test will automatically amend the maximum permitted heat input rate to be equal to the test heat input rate. The actual heat input rate shall be specified in each test

SPECIFIC CONDITIONS: (continued)

report. Failure to submit the actual heat input rate, or operation at conditions during testing which do not reflect normal operating conditions may invalidate the test and fail to provide reasonable assurance of compliance. [Rule 17-4.070(3), F.A.C.]

8. Compliance with the emission limitations of Specific Condition Nos. 2, 3, 4 and 5B (sootblowing) shall be determined using EPA Methods contained in 40 CFR 60, Appendix A and adopted by reference in Rule 17-2.700, F.A.C. in accordance with Table 700-1 and DER Method 9 contained in Rule 17-2.700, F.A.C. The Method 9 observation period shall be at least 60 minutes and concurrent with one stack test run for sootblowing and non-sootblowing conditions. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule 17-2.700, F.A.C. and 40 CFR 60, Appendix A.

9. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information pursuant to Subsection 403.061(13), Florida Statutes:

(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.

Duplicate copies of all reports shall be submitted to the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation.

10. Operation and Maintenance Plan. [Rule 17-2.650(2)(g), F.A.C.]

A. Process System Performance Parameters:

1) Source Designator: Hooker's Point Unit #4
2) Design Fuel Consumption Rate: 59.4 barrels per hour
3) Steam Flow: 303,000 pounds per hour
4) Operating Temperature: 900° F.
5) Operating Pressure: 960 psi

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

<u>Continuously Monitored and Recorded</u>

Steam Flow
Steam Temperature
Steam Pressure
Excess Air

SPECIFIC CONDITIONS: (continued)

Daily

Check visible emissions
Sample fuel oil for monthly composite analysis
Maintain optimum flame pattern for efficient fuel combustion

Monthly

Monitor and back calculate fuel input rate

During Major Outages

Inspect boiler, controls, auxiliaries, and ductwork and repair as necessary.

Prior to Startup

Inspect burners and clean as necessary.
Inspect burner tips and replace as necessary.

C. Records of inspection, maintenance, and performance parameters shall be retained for a minimum of two years and shall be made available to the Department or the Environmental Protection Commission of Hillsborough County upon request. [Rule 17-2.650(2)(g)5., F.A.C.]

11. The Environmental Protection Commission of Hillsborough County shall be notified in writing 15 days in advance of any compliance test to be conducted on this source. [Rules 17-2.700(2)(a)9. and 17-2.820(5), F.A.C]

12. An application for renewal of permit to operate this source, completed in quadruplicate, shall be submitted to the Environmental Protection Commission of Hillsborough County at least 60 days prior to its expiration date. [Rule 17-4.090, F.A.C.]

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Richard Garrity, Ph.D.
Director of District Management

ATTACHMENT - GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither 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. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use 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.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

(a) Have access to and copy any records that must be kept under conditions of the permit;

(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. 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 provide the Department with the following information:

(a) A description of and cause of noncompliance; and

(b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

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 for revocation of this permit.

9. 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The 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.

11. This permit is transferable only upon Department approval in accordance with Rule 17-4.120 and 17-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

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)

( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

RECD
SEP 23 1991
ENV. PROT. COMM.

APPLICATION FOR RENEWAL OF PERMIT TO OPERATE AIR POLLUTION SOURCE(S)

FILE NO. A029-202998

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Air Pollution Renewal of DER Permit No. A029-125689

Company Name: Tampa Electric Company County: Hillsborough

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

Hookers Point Station Boiler 4

Source Location: Street: Foot of Hemlock City: Tampa

UTM: East 358,000 North 3,091,000

Latitude: 27° 56' 20"N. Longitude: 82° 26' 34"W.

1. Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05. Enclosed

2. Have there been any alterations to the plant since last permitted? [ ] Yes [X] No
If minor alterations have occurred, describe on a separate sheet and attach.

3. Attach the last compliance test report required per permit conditions if not submitted previously. Submitted 1/17/91

4. Have previous permit conditions been adhered to? [X] Yes [ ] No If no, explain on a separate sheet and attach.

5. Has there been any malfunction of the pollution control equipment during tenure of current permit? [ ] Yes [X] No If yes, and not previously reported, give brief details and what action was taken on a separate sheet and attach.

6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department? [X] Yes [ ] No

7. Has the annual operating report for the last calendar year been submitted? [X] Yes [ ] No If no, please attach.

1. Please provide the following information if applicable:

A. Raw Materials and Chemical Used in Your Process: Not Applicable

Description	Contaminant Type	Contaminant Wt	Utilization Rate	Utilization lbs/hr

B. Product Weight (lbs/hr): Not Applicable

C. Fuels

Type (Be Specific)	Consumption* Avg/hr*	Consumption* Max/hr**	Maximum Heat Input (MMBTU/hr)
Fuel Oil	23.5*	59.4	411

D. Normal Equipment Operating Time: hrs/day 24; days/wk 7; wks/yr 52;

hrs/yr (power plants only) 8760 if seasonal, describe _____

* Average value, 1984 and 1985 emissions inventories

The undersigned owner or authorized representative*** of Tampa Electric Company is fully aware that the statements made in this application for a renewal of a permit to operate an air pollution source are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules and regulations of the Department. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted facility.

*During actual time of operation.
**Units: Natural Gas-MMCF/hr; Fuel Oils-barrels/hr; Coal-lbs/hr.
***Attach letter of authorization if not previously submitted

Lynn F. Robinson
Signature, Owner or Authorized Representative
(Notarization is mandatory)

Lynn F. Robinson, Manager, Environmental Planning
Typed Name and Title

P.O. Box 111
Address

Tampa FL 33601-0111
City State Zip

9/20/91 228-4836
Date Telephone No.

STATE OF FLORIDA
COUNTY OF HILLSBOROUGH

Sworn to and subscribed before me this 20 day of September, 1991.

NOTARY PUBLIC

Diana R. Hofer
Notary Public
Commission Expires:

NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. DEC. 4,1993
BONDED THRU GENERAL INS. UND.

Professional Engineer in Florida (as required by Subsection 17-4.05(3), F.A.C.)

This is to certify that the engineering features of this air pollution control project have been ~~designed~~/examined* by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgement, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statuates of the State of Florida and the rules and the regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintainance and operation of the pollution control facilities* and, if applicable, pollution sources.

Signed Mark J Hornick

Date: 9/13/91 Telephone No. 228-4111

Mark J. Hornick
Name (Please type)

Tampa Electric Company
Company Name (Please type)

P.O. Box 111, Tampa, FL 33601-0111
Mailing Address (Please Type)

Affix seal here

MARK J. HORNICK
CERTIFICATE
38663
STATE OF FLORIDA
REGISTERED ENGINEER

Florida Registration No. 38663

* This unit's air emissions are controlled by fuel quality and efficient combustion of fuel.

HOOKERS POINT STATION - BOILERS 1 THROUGH 6

OPERATION AND MAINTENANCE PLAN

Introduction

Hookers Point Station is owned and operated by Tampa Electric Company. The plant is located on the shore of Hillsborough Bay off Sparkman Channel. The plant consists of six boilers and five turbine generator units. Boilers 1 through 5 are connected to a header system which supplies steam to four turbine generators. Boiler 6 supplies steam to turbine generator number 5.

The Hookers Point boilers burn No. 6 fuel oil. The boiler manufacturers, types and in-service dates are listed below:

Boiler	Service Date	Manufacturer	Type
1	1948	Babcock and Wilcox	Front Firing
2	1948	Babcock and Wilcox	Front Firing
3	1950	Babcock and Wilcox	Front Firing
4	1950	Babcock and Wilcox	Front Firing
5	1953	Babcock and Wilcox	Front Firing
6	1955	Combustion Engineering	Tangential Firing

The boilers exhaust gases through stacks at an elevation of 280 feet.

Process System Performance Parameters

Boilers 1 through 6 burn low sulfur No. 6 fuel oil. Fuel oil quality is monitored upon delivery. In addition, daily samples are taken for a monthly composite analysis. The design fuel consumption, steam flow rates, operating temperatures and operating pressures are listed below.

Boiler	Fuel Consumption (bbls/hr)	Steam Flow (lbs/hr)	Operating Temperature (°F)	Operating Pressure (psi)
1	43.0	220,000	900	960
2	43.0	220,000	900	960
3	59.4	303,000	900	960
4	59.4	303,000	900	960
5	86.2	440,000	900	975
6	126.0	625,000	950	1450

Actual fuel input to the boilers is back calculated from monthly fuel tank drawdown and boiler efficiencies. Steam flow, temperature and pressure are continuously monitored and recorded on control room charts. Fuel oil temperature and pressure are maintained at optimum levels. Excess air is continuously monitored, recorded and maintained at levels to produce efficient fuel combustion.

Maintenance Inspection

All generating units of the Tampa Electric Company system are regularly scheduled for periodic maintenance. The schedule for planned maintenance outages is affected by system load and forced outage requirements. Typically, planned outages are scheduled during non-peak load periods such as the spring or fall.

During major outages, the boilers, controls, auxiliaries and duct work are inspected and repaired as necessary. Ongoing procedures include burner inspections and cleanings, burner tip replacements and maintenance of optimum flame patterns to achieve efficient fuel combustion. All repair information is stored for future reference.

Plant Status

Hookers Point Station was brought back into service in late 1990. The plant was previously on long-term reserve standby status since April 1986. All required start-up stack testing has been done.

TAMPA ELECTRIC
A TECO ENERGY COMPANY

TO WHOM IT MAY CONCERN:

Please be advised that Lynn F. Robinson, Manager, Environmental Planning, is the authorized representative of Tampa Electric Company concerning matters with which this permit application deals.

Very Truly Yours,

WN Cantrell

William N. Cantrell
Vice President
Energy Resources Planning

sn/GG398

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT
7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

813-985-7402
SunCom - 570-8000

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

DR. RICHARD D. GARRITY
DISTRICT MANAGER

January 14, 1987

Mr. A. Spencer Autry, Manager
Environmental Planning
Tampa Electric Company
Post Office Box 111
Tampa, FL 33601-0111

Dear Mr. Autry:

RE: Hillsborough County - AP
Permit Nos. AO29-125685, 86, 87, 89, 90 and 91.

Enclosed are amended permits No. AO29-125685, 86, 87, 89, 90 and 91 to operate the facilities at Hooker's Point Unit Nos. 1, 2, 3, 4, 5, and 6 respectively.

These amendments have been made in accordance with the requests of your staff during the meeting January 8, 1987, at the District Office, with Hillsborough County Environmental Protection Commission in attendance.

If you have any questions please call Mr. Tom John at (813) 985-7402.

Sincerely,

W. C. Thomas, P.E.
District Air Engineer

cc: HCEPC
file

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

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DR. RICHARD D. GARRITY
DISTRICT MANAGER

PERMITTEE:
Mr. A. Spencer Autry, Manager
Environmental Planning
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

PERMIT/CERTIFICATION
Permit No.: AO29-125689
County: Hillsborough
Issuance Date: 12-29-86
Amended Date: 1-14-87
Expiration Date: 12-22-91
Project: Hooker's Point
Station Unit # 4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of a 411 MMBTU/hr steam generator designated as Unit #4. This front firing type boiler was manufactured by Babcock and Wilcox Corporation and is fired on No. 6 fuel oil. The unit has no pollution control equipment. Air pollutant emissions are controlled by efficient combustion of the fuel. Unit Nos. 3 and 4 share the same stack exhaust.

Location: At the foot of Hemlock Street, Tampa.

UTM: 17-358.0E 3091.0N NEDS NO: 0038 Point ID: 04

Replaces Permit No.: AO29-47723

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 Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate the enforcement action for any violation of the "Permit Conditions" by the permittee, its agent, employees, servants or representatives.

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

3. As provided in Subsections 403.087(6) and 403.712(5), 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 infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use 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.

5. 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, unless specifically authorized by any order from the department.

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as maybe required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purposes of;

a. Having access to and copying any records that must be kept under the conditions of the permit:

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. 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 recurrance 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.

9. 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 403.73 and 403.111, Florida Statutes.

10. The 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.

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

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)

( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

14. (con't)

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The maximum allowable particulate emission rate from this source shall be 0.1 pounds per MMBTU heat input over a two hour average [Section 17-2.650(2)(c)2.b.(i), F.A.C.], except for any 3 hours during a 24 hour period in which the boiler is being cleaned by soot blowing or experiencing a load change. Under these operating conditions, the maximum allowable particulate emission rate shall be 0.3 pounds per MMBTU heat input, providing best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized [Section 17-2.250(3), F.A.C.].

2. The maximum opacity from this source shall be 20 percent [Section 17-2.650(2)(c)2.b.(ii), F.A.C.] except for any 2 minutes during a 60 minute period in which the opacity shall not exceed 40 percent [Section 17-2.600(5), F.A.C.]; any 3

hours during a 24 hour period of excess emissions in which the boiler is being cleaned by soot blowing or experiencing a load change the opacity shall not exceed 60%; and excess emissions otherwise allowed under Sections 17-2.250(1) through (3), F.A.C.

3. The maximum allowable SO_2 emission rate from this unit shall be 1.1 pounds of SO_2 per MMBTU heat input [Subsection 17-2.600(5)(b)3.a.(v), F.A.C.].

4. Within 60 days after achieving 90% of the maximum rated capacity but not more than 180 days from startup, and annually thereafter, or within a ninety (90) day period prior to the next annual due date, this unit shall be tested for particulate matter [under both sootblowing and non-sootblowing operating conditions], sulfur dioxide, and visible emissions. The Method 9 test interval on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. One copy of test data shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission and one copy to the Southwest District Department of Environmental Regulation within 45 days of testing.

5. Compliance with the SO_2 emission standard may be demonstrated by calculating SO_2 emissions based on the sulfur content of the fuel in lieu of stack sampling as provided in Section 17-2.700, F.A.C. An analysis of the fuel oil shall be submitted with the stack test report.

6. 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 Section 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.

A copy of this report shall be submitted to the Southwest District Department of Environmental Regulation, and a copy to the Air Section, Hillsborough County Environmental Protection Commission.

7. Operation and Maintenance Plan [Section 17-2.650(2), F.A.C.].

A. Process System Performance Parameters:
(1) Source Designator: Hooker's Point Unit No. 4
(2) Design Fuel Consumption Rate: 59.4 barrels per hour
(3) Steam Flow: 303,000 pounds per hour
(4) Operating Temperature: 900 degrees F
(5) Operating Pressure: 960 psi

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

Continuously Monitored and Recorded

Steam Flow
Steam Temperature
Steam Pressure
Excess Air

Daily

Check visible emissions
Sample fuel oil for monthly composite analysis
Maintain optimum flame pattern for efficient fuel combustion

Monthly

Monitor and back calculate fuel input rate

During Major Outages

Inspect boiler, controls, auxiliaries, and ductwork and repair as necessary.

Prior to Start-up

Inspect burners and clean as necessary.
Inspect burner tips and replace as necessary.

C. Records of inspection, maintenance, and performance parameters shall be retained for a minimum of two years and shall be made available to the Department or Hillsborough County Environmental Protection Commission upon request [Subsection 17-2.650(2)(g)5., F.A.C.].

PERMITTEE
Tampa Electric Company

Permit No.: AO29-125689
Project: Hooker's Point
Station Unit No.4

8. An original application to renew this operating permit and three (3) copies, with original seals and signatures, shall be submitted to the Hillsborough County Environmental Protection Commission, at least 60 days prior to the expiration date of this permit.

Issued: December 29, 1986

Amended this 14 day of Jan
1987.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Richard D. Garrity, Ph.D.
District Manager

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT
7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

813-985-7402
SunCom - 570-8000

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

DR. RICHARD D. GARRITY
DISTRICT MANAGER

December 22, 1986

NOTICE OF PERMIT

Mr. A. Spencer Autry, Manager
Environmental Planning
Tampa Electric Company
Post Office Box 111
Tampa, FL 33601-0111

Dear Mr. Autry:

Re: Hillsborough County - AP
Hooker's Point Station Unit #4

Enclosed is Permit Number AO29-125689 to operate a 411 MMBTU/hr steam generator designated as Unit #4, issued pursuant to Section 403.087, Florida Statutes.

Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing) on it. The petition must conform to the requirements of Chapters 17-103 and 28-5.201, FAC, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee Florida 32301, within fourteen (14) days of receipt of this notice. Failure to file a petition within the fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes. This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, FAC. Upon timely filing of a petition or a request for an extension of time, this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Tampa, Florida.

Sincerely,

Tom John

Tom John, P.E.
Permitting Engineer

TJ/dtw

Attachment: as stated

cc: HCEPC

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 12/29/86 to the listed persons.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(10), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

A. S. Redding
Clerk

12/29/86
Date

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

813-985-7402
SunCom - 570-8000

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

DR. RICHARD D. GARRITY
DISTRICT MANAGER

PERMITTEE:
Mr. A. Spencer Autry, Manager
Environmental Planning
Tampa Electric Company
Post Office Box 111
Tampa, FL 33601-0111

PERMIT/CERTIFICATION
Permit No.: AO29-125689
County: Hillsborough
Expiration Date: 12-22-91
Project: Hooker's Point
Station Unit #4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of a 411 MMBTU/hr steam generator designated as Unit #4. This front firing type boiler was manufactured by Babcock and Wilcox Corporation and is fired on No. 6 fuel oil. The unit has no pollution control equipment. Air pollutant emissions are controlled by efficient combustion of the fuel. Unit Nos. 3 and 4 share the same stack exhaust.

Location: At the foot of Hemlock Street, Tampa.

UTM: 17-358.0E 3091.0N NEDS NO: 0038 Point ID: 04

Replaces Permit No.: AO29-47723

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 Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate the enforcement action for any violation of the "Permit Conditions" by the permittee, its agent, employees, servants or representatives.

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

3. As provided in Subsections 403.087(6) and 403.712(5), 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 infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use 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.

5. 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, unless specifically authorized by any order from the department.

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as maybe required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purposes of;

a. Having access to and copying any records that must be kept under the conditions of the permit:

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. 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 recurrance 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.

9. 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 403.73 and 403.111, Florida Statutes.

10. The 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.

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

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)

( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

14. (con't)

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The maximum allowable particulate emission rate from this source shall be 0.1 pounds per MMBTU heat input over a two hour average [Section 17-2.650(2)(c)2.b.(i), F.A.C.], except for any 3 hours during a 24 hour period in which the boiler is being cleaned by soot blowing or experiencing a load change. Under these operating conditions, the maximum allowable particulate emission rate shall be 0.3 pounds per MMBTU heat input, providing best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized [Section 17-2.250(3), F.A.C.].

2. The maximum opacity from this source shall be 20 percent [Section 17-2.650(2)(c)2.b.(ii), F.A.C.] except for any 2 minutes during a 60 minute period in which the opacity shall not exceed 40 percent [Section 17-2.600(5), F.A.C.]; any 3

hours during a 24 hour period of excess emissions in which the boiler is being cleaned by soot blowing or experiencing a load change the opacity shall not exceed 60%; and excess emissions otherwise allowed under Sections 17-2.250(1) through (3), F.A.C.

3. The maximum allowable SO_2 emission rate from this unit shall be 1.1 pounds of SO_2 per MMBTU heat input [Subsection 17-2.600(5)(b)3.a.(v), F.A.C.].

4. Within 60 days after achieving 90% of the rated capacity but not more than 180 days from startup, and annually thereafter, or within a ninety (90) day period prior to the next annual due date, this unit shall be tested for particulate matter [under both sootblowing and non-sootblowing operating conditions], sulfur dioxide, and visible emissions. The Method 9 test interval on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. One copy of test data shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission and one copy to the Southwest District Department of Environmental Regulation within 45 days of testing.

5. Compliance with the SO_2 emission standard may be demonstrated by calculating SO_2 emissions based on the sulfur content of the fuel in lieu of stack sampling as provided in Section 17-2.700, F.A.C. An analysis of the fuel oil shall be submitted with the stack test report.

6. A report shall be submitted to both the Florida Department of Environmental Regulation and Hillsborough County Environmental Protection Commission within 30 days following each calendar quarter detailing any excess opacity readings recorded during the three month period. For the purpose of this report, excess emissions shall be defined as all six minute averages of opacity greater than 20% except as specified in Specific Condition No. 2.

7. 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 Section 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.

A copy of this report shall be submitted to the Southwest District Department of Environmental Regulation, and a copy to the Air Section, Hillsborough County Environmental Protection Commission.

8. Operation and Maintenance Plan [Section 17-2.650(2), F.A.C.].

A. Process System Performance Parameters:
(1) Source Designator: Hooker's Point Unit No. 1
(2) Design Fuel Consumption Rate: 43 barrels per hour
(3) Steam Flow: 220,000 pounds per hour
(4) Operating Temperature: 900 degrees F
(5) Operating Pressure: 960 psi

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

Continuously Monitored and Recorded

Steam Flow
Steam Temperature
Steam Pressure
Excess Air

Daily

Check visible emissions
Sample fuel oil monthly conposite analysis
Maintain optimum flame pattern for efficient fuel combustion

Monthly

Monitor and back calculate fuel input rate

During Major Outages

Inspect boiler, controls, auxiliaries, and ductwork and repair as necessary.

Prior to Start-up

Inspect burners and clean as necessary.
Inspect burner tips and replace as necessary.

C. Records of inspection, maintenance, and performance parameters shall be retained for a minimum of two years and shall be made available to the Department or Hillsborough County Environmental Protection Commission upon request [Subsection 17-2.650(2)(g)5., F.A.C.].

PERMITTEE
Tampa Electric Company

Permit No.: AO29-125689
Project: Hooker's Point
Station Unit No.4

9. An original application to renew this operating permit shall be submitted to the Southwest District Department of Environmental Regulation, and a copy, with original seals and signatures, shall be submitted to the Hillsborough County Environmental Protection Commission, at least 60 days prior to the expiration date of this permit.

Issued this 29 day of Dec.
19 86

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

W. C. Thomas

For Richard D. Garrity, Ph.D.
District Manager

P 433 083 923

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Spence Autry, TECO	
Street and No. P. O. Box 111	
P.O., State and ZIP Code Tampa 33601-0111	
Postage	$ 2.40
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	.70
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 3.85
Postmark or Date December 29, 1986	

PS Form 3800, June 1985 ★ U.S.G.P.O. 1985-480-794

63-27
631

2-65447
CHECK NO.

65447

TAMPA ELECTRIC
A TECO ENERGY COMPANY

POST OFFICE BOX 111
TAMPA, FLORIDA 33601

PAY:

DATE 09 24 86

TWO THOUSAND SEVENTY AND NO/100 ****** $ ******2,070.00
DOLLARS **********

TO THE ORDER OF HILLSBOROUGH COUNTY BOARD OF COUNTY COMMISSIONERS

W.H. Stoes
ONLY ONE SIGNATURE REQUIRED ON CHECKS OF $2500.00 OR LESS

NCNB NATIONAL BANK OF FLORIDA • TAMPA, FLORIDA

[redacted]

THE ACCOMPANYING CHECK IS IN FULL PAYMENT OF ITEMS BELOW - DETACH BEFORE CASHING

INVOICE NO.	DATE	VOUCHER	GROSS AMOUNT	DISCOUNT	NET AMOUNT
092286A	092286	222228	PERMIT 345.00		345.00
092286B	092286	222229	PERMIT 345.00		345.00
092286C	092286	222230	PERMIT 345.00		345.00
092286D	092286	222231	PERMIT 345.00		345.00
092286E	092286	222232	PERMIT 345.00		345.00
092286F	092286	222233	PERMIT 345.00		345.00

CHECK NO.	DATE	VENDOR NO.	VENDOR NAME	TOTAL AMOUNT
65447	092486	HIL076	HILLSBOROUGH COUNTY B	2,070.00

TAMPA ELECTRIC COMPANY • P.O. BOX 111 TAMPA, FL. 33601 • (813) 228-4111

2-65563
CHECK NO.

65563

TAMPA ELECTRIC
A TECO ENERGY COMPANY

POST OFFICE BOX 111
TAMPA, FLORIDA 33601

63-27
631

PAY:

DATE

THREE THOUSAND AND NO/100 DOLLARS **** 09 24 86 $ ******3,000.00

TO THE ORDER OF FLORIDA DEPT OF ENVIRONMENTAL REGULATION

ONLY ONE SIGNATURE REQUIREQ ON CHECKS OF $2500.00 OR LESS

NCNB NATIONAL BANK OF FLORIDA • TAMPA, FLORIDA

[redacted]

THE ACCOMPANYING CHECK IS IN FULL PAYMENT OF ITEMS BELOW - DETACH BEFORE CASHING

INVOICE NO.	DATE	VOUCHER	GROSS AMOUNT	DISCOUNT	NET AMOUNT
092286A	092286	222234	PERMIT 500.00		500.00
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092286E	092286	222238	PERMIT 500.00		500.00
092286F	092286	222239	PERMIT 500.00		500.00

CHECK NO.	DATE	VENDOR NO.	VENDOR NAME	TOTAL AMOUNT
65563	092486	FL0004	FLORIDA DEPT OF ENVIR	3,000.00

TAMPA ELECTRIC COMPANY • P.O. BOX 111 TAMPA, FL. 33601 • (813) 228-4111

TAMPA ELECTRIC
A TECO ENERGY COMPANY

September 25, 1986

RE: Hookers Point Station Boiler No. 4
Air Operations Permit Application

TO WHOM IT MAY CONCERN:

Please be advised that A. Spencer Autry, Manager of Environmental Planning, is the authorized representative of Tampa Electric Company concerning matters with which this permit application deals.

Very truly yours,

Heywood A. Turner

Heywood A. Turner
Senior Vice President
Production

HAT/tb

TAMPA ELECTRIC COMPANY
P.O. Box 111 Tampa, Florida 33601 (813) 228-4111

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PAID OCT 2 1986

A029-125689

APPLICATION FOR RENEWAL OF PERMIT TO OPERATE AIR POLLUTION SOURCE(S)

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Air Pollution Renewal of DER Permit No. A029-47723

Company Name: Tampa Electric Company County: Hillsborough

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

Hookers Point Station Boiler 4

Source Location: Street: Hemlock Avenue City: Tampa

UTM: East 358,000 North 3,091,000

Latitude: 27° 56' 20"N. Longitude: 82° 26' 34"W.

1. Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05.

2. Have there been any alterations to the plant since last permitted? [ ] Yes [X] No If minor alterations have occurred, describe on a separate sheet and attach.

3. Attach the last compliance test report required per permit conditions if not submitted previously. Submitted 1/22/86.

4. Have previous permit conditions been adhered to? [X] Yes [ ] No If no, explain on a separate sheet and attach.

5. Has there been any malfunction of the pollution control equipment during tenure of current permit? [ ] Yes [X] No If yes, and not previously reported, give brief details and what action was taken on a separate sheet and attach.

6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department? [X] Yes [ ] No

7. Has the annual operating report for the last calendar year been submitted? [X] Yes [ ] No If no, please attach.

I. Please provide the following information if applicable:

A. Raw Materials and Chemical Used in Your Process: Not Applicable.

Description	Contaminant Type	%Wt	Utilization Rate	lbs/hr

B. Product Weight (lbs/hr): Not Applicable.

C. Fuels

Type (Be Specific)	Consumption* Avg/hr*	BBLS/HR Max/hr**	Maximum Heat Input (MMBTU/hr)
Fuel Oil	23.5*	59.4	411

D. Normal Equipment Operating Time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

hrs/yr (power plants only) ** ; if seasonal, describe _____

*Average value, 1984 and 1985 emissions inventories.
**See Attachment A.

The undersigned owner or authorized representative*** of Tampa Electric Company is fully aware that the statements made in this application for a renewal of a permit to operate an air pollution source are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules and regulations of the Department. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted facility.

*During actual time of operation.
**Units: Natural Gas-MMCF/hr; Fuel Oils-barrels/hr; Coal-lbs/hr.
***Attach letter of authorization if not previously submitted

Signature, Owner or Authorized Representative
(Notarization is mandatory)

A. Spencer Autry, Manager, Environmental Planning
Typed Name and Title

P.O. Box 111
Address

Tampa, Florida 33601
City State Zip

9/25/86 (813) 228-4111
Date Telephone No.

NOTARY PUBLIC
NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. NOV 14,1989

9/25/86

ATTACHMENT A

HOOKERS POINT STATION - BOILERS 1 THROUGH 6

OPERATION AND MAINTENANCE PLAN

Introduction

Hookers Point Station is owned and operated by Tampa Electric Company. The plant is located on the shore of Hillsborough Bay off Sparkman Channel. The plant consists of six boilers and five turbine generator units. Boilers 1 through 5 are connected to a header system which supplies steam to four turbine generators. Boiler 6 supplies steam to turbine generator number 5.

The Hookers Point boilers burn No. 6 fuel oil. The boiler manufacturers, types and in-service dates are listed below:

Boiler	Service Date	Manufacturer	Type
1	1948	Babcock and Wilcox	Front Firing
2	1948	Babcock and Wilcox	Front Firing
3	1950	Babcock and Wilcox	Front Firing
4	1950	Babcock and Wilcox	Front Firing
5	1953	Babcock and Wilcox	Front Firing
6	1955	Combustion Engineering	Tangential Firing

The boilers exhaust gases through stacks at an elevation of 280 feet.

Process System Performance Parameters

Boilers 1 through 6 burn low sulfur No. 6 fuel oil. Fuel oil quality is monitored upon delivery. In addition, daily samples are taken for a monthly composite analysis. The design fuel consumption, steam flow rates, operating temperatures and operating pressures are listed below.

Boiler	Fuel Consumption	Steam Flow	Operating Temperature	Operating Pressure
1	43.0 BBLS/HR	220,000 LBS/HR	900°F	960 psi
2	43.0	220,000	900°	960
3	59.4	303,000	900°	960
4	59.4	303,000	900°	960
5	86.2	440,000	900°	975
6	126.0	625,000	950°	1450

Actual fuel input to the boilers is back calculated from monthly fuel tank drawdown and boiler efficiencies. Steam flow, temperature and pressure are continuously monitored and recorded on control room charts. Fuel oil temperature and pressure are maintained at optimum levels. Excess air is continuously monitored, recorded and maintained at levels to produce efficient fuel combustion.

Maintenance Inspection

All generating units of the Tampa Electric Company system are regularly scheduled for periodic maintenance. The schedule for planned maintenance outages is affected by system load and forced outage requirements. Typically, planned outages are scheduled during non-peak load periods such as the spring or fall.

During major outages, the boilers, controls, auxiliaries and duct work are inspected and repaired as necessary. Ongoing procedures include burner inspections and cleanings, burner tip replacements and maintenance of optimum flame patterns to achieve efficient fuel combustion. All repair information is stored for future reference.

Plant Status

Hookers Point Station was placed on Long Term Reserve Standby status in April 1986. Under expected load growth conditions and present assumptions, these units are expected to be returned to service sometime after 1989. However, these units could be brought into service earlier if load growth is higher than expected or other circumstances dictate.

2-65447
CHECK NO.

65447

TAMPA ELECTRIC
A TECO ENERGY COMPANY

POST OFFICE BOX 111
TAMPA, FLORIDA 33601

63-27
631

PAY:

DATE 09 24 86

TWO THOUSAND SEVENTY AND NO/100 ****** $ ******2,070.00
DOLLARS **********

TO THE ORDER OF HILLSBOROUGH COUNTY BOARD OF COUNTY COMMISSIONERS

W.H. Stokes
ONLY ONE SIGNATURE REQUIRED ON CHECKS OF $2500.00 OR LESS

NCNB NATIONAL BANK OF FLORIDA • TAMPA, FLORIDA

[redacted]

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CHECK NO.	DATE	VENDOR NO.	VENDOR NAME	TOTAL AMOUNT
65447	092486	HIL076	HILLSBOROUGH COUNTY B	2,070.00

TAMPA ELECTRIC COMPANY • P.O. BOX 111 TAMPA, FL. 33601 • (813) 228-4111

2-65563
CHECK NO.

65563

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A TECO ENERGY COMPANY

POST OFFICE BOX 111
TAMPA, FLORIDA 33601

63-27
631

PAY:

DATE

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[redacted]

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TAMPA ELECTRIC COMPANY • P.O. BOX 111 TAMPA, FL. 33601 • (813) 228-4111

TAMPA ELECTRIC
A TECO ENERGY COMPANY

September 25, 1986

RE: Hookers Point Station Boiler No. 4
Air Operations Permit Application

TO WHOM IT MAY CONCERN:

Please be advised that A. Spencer Autry, Manager of Environmental Planning, is the authorized representative of Tampa Electric Company concerning matters with which this permit application deals.

Very truly yours,

Heywood A. Turner

Heywood A. Turner
Senior Vice President
Production

HAT/tb

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P.O. Box 111 Tampa, Florida 33601 (813) 228-4111

STATE OF FLORIDA

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2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION FOR RENEWAL OF PERMIT TO OPERATE AIR POLLUTION SOURCE(S)

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Air Pollution Renewal of DER Permit No. A029-47723

Company Name: Tampa Electric Company County: Hillsborough

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

Hookers Point Station Boiler 4

Source Location: Street: Hemlock Avenue City: Tampa

UTM: East 358,000 North 3,091,000

Latitude: 27° 56' 20"N. Longitude: 82° 26' 34"W.

1. Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05.

2. Have there been any alterations to the plant since last permitted? [ ] Yes [X] No If minor alterations have occurred, describe on a separate sheet and attach.

3. Attach the last compliance test report required per permit conditions if not submitted previously. Submitted 1/22/86.

4. Have previous permit conditions been adhered to? [X] Yes [ ] No If no, explain on a separate sheet and attach.

5. Has there been any malfunction of the pollution control equipment during tenure of current permit? [ ] Yes [X] No If yes, and not previously reported, give brief details and what action was taken on a separate sheet and attach.

6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department? [X] Yes [ ] No

7. Has the annual operating report for the last calendar year been submitted? [X] Yes [ ] No If no, please attach.

J. Please provide the following information if applicable:

A. Raw Materials and Chemical Used in Your Process: Not Applicable.

Description	Contaminant Type	%Wt	Utilization Rate	lbs/hr

B. Product Weight (lbs/hr): Not Applicable.

C. Fuels

Type (Be Specific)	Consumption* Avg/hr*	BBLS/HR Max/hr**	Maximum Heat Input (MMBTU/hr)
Fuel Oil	23.5*	59.4	411

D. Normal Equipment Operating Time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

hrs/yr (power plants only) ** ; if seasonal, describe _____

*Average value, 1984 and 1985 emissions inventories.
**See Attachment A.

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*During actual time of operation.
**Units: Natural Gas-MMCF/hr; Fuel Oils-barrels/hr; Coal-lbs/hr.
***Attach letter of authorization if not previously submitted

Signature, Owner or Authorized Representative
(Notarization is mandatory)

A. Spencer Autry, Manager, Environmental Planning
Typed Name and Title

P.O. Box 111
Address

Tampa, Florida 33601
City State Zip

9/25/86 (813) 228-4111
Date Telephone No.

NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. NOV 14,1989
BONDED THRU GENERAL INS. UND.

9/25/86

ATTACHMENT A

HOOKERS POINT STATION - BOILERS 1 THROUGH 6

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Introduction

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The Hookers Point boilers burn No. 6 fuel oil. The boiler manufacturers, types and in-service dates are listed below:

Boiler	Service Date	Manufacturer	Type
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6	1955	Combustion Engineering	Tangential Firing

The boilers exhaust gases through stacks at an elevation of 280 feet.

Process System Performance Parameters

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Plant Status

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2-65447
CHECK NO.

65447

TAMPA ELECTRIC
A TECO ENERGY COMPANY

POST OFFICE BOX 111
TAMPA, FLORIDA 33601

63-27
631

PAY:

DATE 09 24 86

TWO THOUSAND SEVENTY AND NO/100 ****** $ ******2,070.00
DOLLARS **********

TO THE ORDER OF HILLSBOROUGH COUNTY BOARD OF COUNTY COMMISSIONERS

W.H. Stoes

ONLY ONE SIGNATURE REQUIRED ON CHECKS OF $2500.00 OR LESS

NCNB NATIONAL BANK OF FLORIDA • TAMPA, FLORIDA

[redacted]

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TAMPA ELECTRIC COMPANY • P.O. BOX 111 TAMPA, FL. 33601 • (813) 228-4111

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A TECO ENERGY COMPANY

September 25, 1986

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A. Spencer Autry, Manager, Environmental Planning
Typed Name and Title

P.O. Box 111
Address

Tampa, Florida 33601
City State Zip

9/25/86 (813) 228-4111
Date Telephone No.

DOCUMENT NOTARIZED
NOTARY PUBLIC
NOTARY PUBLIC, STATE OF FLORIDA
MY COMMISSION EXP. NOV 14, 1989
BONDED THRU GENERAL INS. UND.

9/25/86

ER Form 17-1.202(4)
Effective November 30, 1982

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092286E	092286	222232	PERMIT 345.00		345.00
092286F	092286	222233	PERMIT 345.00		345.00

CHECK NO.	DATE	VENDOR NO.	VENDOR NAME	TOTAL AMOUNT
65447	092486	HIL076	HILLSBOROUGH COUNTY B	2,070.00

TAMPA ELECTRIC COMPANY • P.O. BOX 111 TAMPA, FL. 33601 • (813) 228-4111

63-27
631

2-65563
CHECK NO.

65563

TAMPA ELECTRIC
A TECO ENERGY COMPANY

POST OFFICE BOX 111
TAMPA, FLORIDA 33601

PAY:

DATE

THREE THOUSAND AND NO/100 DOLLARS **** 09 24 86 $ ******3,000.00

TO THE ORDER OF FLORIDA DEPT OF ENVIRONMENTAL REGULATION

B E Bedford

W. H. Stoll

ONLY ONE SIGNATURE REQUIRED ON CHECKS OF $2500.00 OR LESS

NCNB NATIONAL BANK OF FLORIDA • TAMPA, FLORIDA

[redacted]

THE ACCOMPANYING CHECK IS IN FULL PAYMENT OF ITEMS BELOW - DETACH BEFORE CASHING

INVOICE NO.	DATE	VOUCHER	GROSS AMOUNT	DISCOUNT	NET AMOUNT
092286A	092286	222234	PERMIT 500.00		500.00
092286B	092286	222235	PERMIT 500.00		500.00
092286C	092286	222236	PERMIT 500.00		500.00
092286D	092286	222237	PERMIT 500.00		500.00
092286E	092286	222238	PERMIT 500.00		500.00
092286F	092286	222239	PERMIT 500.00		500.00

CHECK NO.	DATE	VENDOR NO.	VENDOR NAME	TOTAL AMOUNT
65563	092486	FL0004	FLORIDA DEPT OF ENVIR	3,000.00

TAMPA ELECTRIC COMPANY • P.O. BOX 111 TAMPA, FL. 33601 • (813) 228-4111

TAMPA ELECTRIC
A TECO ENERGY COMPANY

September 25, 1986

RE: Hookers Point Station Boiler No. 4
Air Operations Permit Application

TO WHOM IT MAY CONCERN:

Please be advised that A. Spencer Autry, Manager of Environmental Planning, is the authorized representative of Tampa Electric Company concerning matters with which this permit application deals.

Very truly yours,

Heywood A. Turner

Heywood A. Turner
Senior Vice President
Production

HAT/tb

TAMPA ELECTRIC COMPANY
P.O. Box 111 Tampa, Florida 33601 (813) 228-4111

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION FOR RENEWAL OF PERMIT TO OPERATE AIR POLLUTION SOURCE(S)

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Air Pollution Renewal of DER Permit No. A029-47723

Company Name: Tampa Electric Company County: Hillsborough

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

Hookers Point Station Boiler 4

Source Location: Street: Hemlock Avenue City: Tampa

UTM: East 358,000 North 3,091,000

Latitude: 27° 56' 20"N. Longitude: 82° 26' 34"W.

1. Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05.

2. Have there been any alterations to the plant since last permitted? [ ] Yes [X] No If minor alterations have occurred, describe on a separate sheet and attach.

3. Attach the last compliance test report required per permit conditions if not submitted previously. Submitted 1/22/86.

4. Have previous permit conditions been adhered to? [X] Yes [ ] No If no, explain on a separate sheet and attach.

5. Has there been any malfunction of the pollution control equipment during tenure of current permit? [ ] Yes [X] No If yes, and not previously reported, give brief details and what action was taken on a separate sheet and attach.

6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department? [X] Yes [ ] No

7. Has the annual operating report for the last calendar year been submitted? [X] Yes [ ] No If no, please attach.

J. Please provide the following information if applicable:

A. Raw Materials and Chemical Used in Your Process: Not Applicable.

Description	Contaminant Type	Contaminant %Wt	Utilization Rate	Utilization lbs/hr

B. Product Weight (lbs/hr): Not Applicable.

C. Fuels

Type (Be Specific)	Consumption* Avg/hr*	Consumption* Max/hr** (BBLS/HR)	Maximum Heat Input (MMBTU/hr)
Fuel Oil	23.5*	59.4	411

D. Normal Equipment Operating Time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

hrs/yr (power plants only) ** ; if seasonal, describe _____

*Average value, 1984 and 1985 emissions inventories.
**See Attachment A.

The undersigned owner or authorized representative*** of Tampa Electric Company is fully aware that the statements made in this application for a renewal of a permit to operate an air pollution source are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules and regulations of the Department. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted facility.

*During actual time of operation.
**Units: Natural Gas-MMCF/hr; Fuel Oils-barrels/hr; Coal-lbs/hr.
***Attach letter of authorization if not previously submitted

Signature, Owner or Authorized Representative
(Notarization is mandatory)

A. Spencer Autry, Manager, Environmental Planning
Typed Name and Title

P.O. Box 111
Address

Tampa, Florida 33601
City State Zip

9/25/86 (813) 228-4111
Date Telephone No.

NOTARY PUBLIC
9/25/86
NOTARY PUBLIC, STATE OF FLORIDA
MY COMMISSION EXP. NOV 24, 1989
BONDED THRU GENERAL INS. UND.

ATTACHMENT A

HOOKERS POINT STATION - BOILERS 1 THROUGH 6

OPERATION AND MAINTENANCE PLAN

Introduction

Hookers Point Station is owned and operated by Tampa Electric Company. The plant is located on the shore of Hillsborough Bay off Sparkman Channel. The plant consists of six boilers and five turbine generator units. Boilers 1 through 5 are connected to a header system which supplies steam to four turbine generators. Boiler 6 supplies steam to turbine generator number 5.

The Hookers Point boilers burn No. 6 fuel oil. The boiler manufacturers, types and in-service dates are listed below:

Boiler	Service Date	Manufacturer	Type
1	1948	Babcock and Wilcox	Front Firing
2	1948	Babcock and Wilcox	Front Firing
3	1950	Babcock and Wilcox	Front Firing
4	1950	Babcock and Wilcox	Front Firing
5	1953	Babcock and Wilcox	Front Firing
6	1955	Combustion Engineering	Tangential Firing

The boilers exhaust gases through stacks at an elevation of 280 feet.

Process System Performance Parameters

Boilers 1 through 6 burn low sulfur No. 6 fuel oil. Fuel oil quality is monitored upon delivery. In addition, daily samples are taken for a monthly composite analysis. The design fuel consumption, steam flow rates, operating temperatures and operating pressures are listed below.

Boiler	Fuel Consumption	Steam Flow	Operating Temperature	Operating Pressure
1	43.0 BBLS/HR	220,000 LBS/HR	900°F	960 psi
2	43.0	220,000	900°	960
3	59.4	303,000	900°	960
4	59.4	303,000	900°	960
5	86.2	440,000	900°	975
6	126.0	625,000	950°	1450

Actual fuel input to the boilers is back calculated from monthly fuel tank drawdown and boiler efficiencies. Steam flow, temperature and pressure are continuously monitored and recorded on control room charts. Fuel oil temperature and pressure are maintained at optimum levels. Excess air is continuously monitored, recorded and maintained at levels to produce efficient fuel combustion.

Maintenance Inspection

All generating units of the Tampa Electric Company system are regularly scheduled for periodic maintenance. The schedule for planned maintenance outages is affected by system load and forced outage requirements. Typically, planned outages are scheduled during non-peak load periods such as the spring or fall.

During major outages, the boilers, controls, auxiliaries and duct work are inspected and repaired as necessary. Ongoing procedures include burner inspections and cleanings, burner tip replacements and maintenance of optimum flame patterns to achieve efficient fuel combustion. All repair information is stored for future reference.

Plant Status

Hookers Point Station was placed on Long Term Reserve Standby status in April 1986. Under expected load growth conditions and present assumptions, these units are expected to be returned to service sometime after 1989. However, these units could be brought into service earlier if load growth is higher than expected or other circumstances dictate.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT
7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

BOB GRAHAM
GOVERNOR
XXXXXXXXX
JACOB D. VARN
SECRETARY
Vicki Tschinkel
WILLIAM K. HENNESSEY
DISTRICT MANAGER

Hillsborough County AP

Mr. Jerry L. Williams
Manager Environmental Planning
Tampa Electric Company
P.O. Box 111
Tampa, Fla. 33601

Dear Mr. Williams:

Enclosed is Permit Number AO29-47723, dated Jan. 27, 1982, to operate the subject air pollution source issued pursuant to Section 403, Florida Statutes.

Should you object to this permit, including any and all of the conditions contained therein, you may file an appropriate petition for administrative hearing. This petition must be filed within fourteen (14) days of the receipt of this letter. Further, the petition must conform to the requirements of Section 28-5.201, Florida Administrative Code, (see reverse side of this letter). The petition must be filed with the Office of General Counsel, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32301.

If no petition is filed within the prescribed time, you will be deemed to have accepted this permit and waived your right to request an administrative hearing on this matter.

Acceptance of the permit constitutes notice and agreement that the Department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement action for violation of the conditions and requirements thereof.

Sincerely,

W.K. Hennessey
District Manager

cc: HCEPC
William N. Cantrell

Enclosure

DER Form 17-1.122(66) 1/2

RULES OF THE ADMINISTRATION COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

PART II
FORMAL PROCEEDINGS

28-5.201 Initiation of Formal Proceedings.

(1) Initiation of formal proceedings shall be made by petition to the agency responsible for rendering final agency action. The term petition as used herein includes any application or other document which expresses a request for formal proceedings. Each petition should be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double-spaced and indented.

(2) All petitions filed under these rules should contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name and address of the petitioner or petitioners, and an explanation of how his/her substantial interests will be affected by the agency determination;

(c) A statement of when and how petitioner received notice of the agency decision or intent to render a decision;

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

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief;

(f) A demand for relief to which the petitioner deems himself entitled; and

(g) Other information which the petitioner contends is material.

****

A petition may be denied if the petitioner does not state adequately a material factual allegation, such as a substantial interest in the agency determination, or if the petition is untimely. (Section 28-5.201(3)(a), FAC).

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT
7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

BOB GRAHAM
GOVERNOR
JACK ALAPAH
SECRETARY
Vicki Tschinkel
WILLIAM K. HENNESSEY
DISTRICT MANAGER

APPLICANT:

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

PERMIT/CERTIFICATION NO. AO29-47723

COUNTY: Hillsborough

PROJECT: FFSG No. 4
Hookers Point

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 411 MMBTU/hr heat input steam generator No. 4, oil fired.

Located at foot of Hemlock Street, Tampa, Hillsborough County.

UTM: 17-358.0E and 3091.0N

Replaces Permit NO: AO29-7103 NEDS NO: 0038 Point ID: 04

Expires: January 25, 1987

PERMIT NO.: A029-47723
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 penalities 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)

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

WILLIAM K. HENNESSEY
DISTRICT MANAGER

March 11, 1982

Mr. Jerry L. Williams
Manager, Environmental Planning
Tampa Electric Company
P.O. Box 111
Tampa, Fla. 33601

RE: Permit Nos. AO29-47721 through AO29-47731
and AO29-47735

Dear Mr. Williams:

Enclosed are revised provisos for each of the above referenced permits. Per conversation and negotiations between John Ramil of TECO and Dan Williams of DER the problems with the original permits issued January 11, 1982 have been resolved.

Your petition rights for administrative hearing remain the same as described in the original permit.

The revised provisos replace the original provisos and become a part of each permit.

Sincerely,

William K. Hennessey
District Manager
Southwest District

WKH/rkt

cc: HCEPC

SPECIFIC CONDITIONS

1. Test the emissions for the following pollutant(s) at intervals of 12 months from date of permit and submit a copy of test data to the District Engineer of 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
   ( )Fluorides
   (X)Plume Density
   (X)Sulfur Oxides*
   ( )Nitrogen Oxides
   ( )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 1.1 lbs. of SO2 per million BTU heat input for this unit.

7. Operation and Maintenance Plan for Particulate Control, F.A.C. 17-2.650

A. Process Parameters

1.	MMBTU Input:	411
2.	Fuel:	Low Sulfur No. 6 Fuel Oil
3.	BBL/hr burned:	59.4
4.	Ash Content:	as sampled
5.	Steam Temp.:	900 F
6.	Steam Press:	960 psig
7.	Steam Flow:	275 MPPH
8.	Air to Fuel Ratio:	Continuously Monitored
9.	Stack Height:	280 Ft.
10.	Boiler Make:	Babcock & Wilcox
11.	Firing Arrangement:	Front firing

B. Inspection and Maintenance Schedules

1. Planned outages: non peak load periods (Spring or Fall)
2. Continuously Monitored
   a. Steam Flow
   b. Steam Temp.
   c. Steam Pressure
   d. Excess Air (recorded)
   e. Fuel oil press and temp.
3. Back calculated
   a. Fuel oil flow
   b. Daily samples for fuel oil analysis

C. 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 permit and submit a copy of test data to the District Engineer of 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
   ( )Fluorides
   (X)Plume Density
   (X)Sulfur Oxides*
   ( )Nitrogen Oxides
   ( )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 minutes of any one hour. [F.A.C. 17-2.600(5)(a)1].

6. Sulfur dioxide emissions are limited to 1.1 lbs. of SO2 per million BTU heat input for this unit.

7. Operation and Maintenance Plan for Particulate Control, F.A.C. 17-2.650

A. Process Parameters

1.	MMBTU Input:	411
2.	Fuel:	Low Sulfur No. 6 Fuel Oil
3.	BBL/hr burned:	118.8
4.	Ash Content:	as sampled
5.	Steam Temp.:	900 F
6.	Steam Press:	960 psig
7.	Steam Flow:	275 MPPH
8.	Air to Fuel Ratio:	Continuously Monitored
9.	Stack Height:	280 Ft.
10.	Boiler Make:	Babcock & Wilcox
11.	Firing Arrangement:	Front firing

B. Inspection and Maintenance Schedules

1. Planned outages: non peak load periods (Spring or Fall)
2. Continuously Monitored
   a. Steam Flow
   b. Steam Temp.
   c. Steam Pressure
   d. Excess Air (recorded)
   e. Fuel oil press and temp.
3. Back calculated
   a. Fuel oil flow
   b. Daily samples for fuel oil analysis

C. 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

W K Hennessey

William K. Hennessey
District Manager

EXPIRATION DATE: January 25, 1987

COMPANY NAME Tampa Electric Co.

Hookers Point
Boiler # 4

RRG ~~GWR~~
Processor

File Number A029-47723

PERMIT APPLICATION STATUS SHEET

Type of permit applied for Air Operation

County Hillsborough

Date Recieved 9/15/81

P.E. seal & signature ☐
Check ☑
No check ☐
Letter of corp. standing ☐

CLOCK DAYS		DATE TASK COMPLETED	INITIALS
3	Logging by Sec'y	9/21/81	RKT
5	Review by Sec. head and transfer to permitting Engineer		
28	Completeness Review	11-3-81	[illegible]
	request additional info *		
	information received *		
	Public Notice Published * (for Air Construction only)		
55	Letter of Intent sent to * Supervisor		
60	Letter of Intent submitted * to District Manager		
75	Intent to issue/deny mailed *		
80	Permitting Eng'r submit finished permit package & recommendations to supervisor		
83	Permit Package to Dist. Engr.		
85	Permit Package to Dist. Manager		
90	Final Issuance/denial	1-27-82	RKT

*If needed, If not indicate by N/A

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee		
To:	Loctn.:	
To:	Loctn.:	
To:	Loctn.:	
From:	Date:	
Reply Optional [ ]	Reply Required [ ]	Info. Only [ ]
Date Due:	Date Due:	

TO: The Files

THRU: Dan Williams

FROM: Bob Garrett

DATE: January 25, 1982

SUBJECT: RACT Applications from TECO, Hookers Point, (6) Permits, Hillsborough County, A/P

Tampa Electric Company has applied for renewal of the following permits to establish RACT compliance.

	Unit	Old Permit	New Permit
1.	Boiler No. 1	AO29-22018	AO29-47726
2.	Boiler No. 2	AO29-22019	AO29-47725
3.	Boiler No. 3	AO29-25432	AO29-47724
4.	Boiler No. 4	AO29-7103	AO29-47723
5.	Boiler No. 5	AO29-12942	AO29-47722
6.	Boiler No. 6	AO29-7104	AO29-47721

FAC 17-2.650 establishes criteria for heavy polluters in Para. (2)(c)2 as 0.1 lbs. TSP/million BTU heat input for fossil fuel steam generators greater than 30 MMBTU/hr. and visible emissions not to exceed 20% opacity. In addition detail information is required by rule pertaining to operation, control devices, and maintenance procedures as part of the permit.

A last minute extension was obtained from TECO to allow both the company and the Department time for more refined information. General questions were answered but no specific numbers for operating parameters were given.

I recommend we issue these permits, accordingly, with an expiration date of January 25, 1987.

HOOKERS POINT STATION - BOILERS 1 THROUGH 6

Operation and Maintenance Plan

Introduction

Hookers Point Station is owned and operated by Tampa Electric Company. The plant is located on the shore of Hillsborough Bay off Sparkman Channel. The plant consists of six boilers and five turbine generator units. Boilers 1 through 5 are connected to a header system which supplies steam to four turbine generators. Boiler 6 supplies steam to turbine generator number 5.

The Hookers Point boilers burn No. 6 fuel oil. The boiler manufacturers, types, and in service dates are listed below:

BOILER	SERVICE DATE	MANUFACTURER	TYPE
1	1948	Babcock and Wilcox	Front Firing
2	1948	Babcock and Wilcox	Front Firing
3	1950	Babcock and Wilcox	Front Firing
4	1950	Babcock and Wilcox	Front Firing
5	1953	Babcock and Wilcox	Front Firing
6	1955	Combustion Engineering	Front Firing

The boilers exhaust gases through stacks at an elevation of 280 feet.

Process System Performance Parameters

Boiler 1 through 6 burn low sulfur No. 6 fuel oil. Fuel oil quality is monitored upon delivery. In addition, daily samples are taken for a monthly composite analysis. The design fuel consumption and steam flow rates are listed below.

BOILER	DESIGN FUEL CONSUMPTION	DESIGN STEAM FLOW
1	86 BBLS./HR	200,000 lbs./HR
2	86 BBLS./HR	200,000 lbs./HR
3	118.8 BBLS./HR	275,000 lbs./HR
4	118.8 BBLS./HR	275,000 lbs./HR
5	86.2 BBLS./HR	440,000 lbs./HR
6	126 BBLS./HR	625,000 lbs./HR

Actual fuel input to the boilers is monitored continuously and calculated on a weekly basis. Steam flow is monitored and recorded each shift. Fuel oil temperature and pressure are maintained at optimum levels. Temperature is recorded continuously while pressure is recorded each hour. Excess air is monitored and maintained at levels to produce efficient fuel combustion.

Maintenance and Inspection

All generating units of the Tampa Electric Company system are regularly scheduled for periodic maintenance. The schedule for planned maintenance outages is affected by system load and forced outage requirements.

During major outages, the boilers, controls, auxiliaries and duct work are inspected and repaired as necessary. On-going procedures include burner inspections and cleanings, burner tip replacements and maintenance of optimum flame patterns to achieve efficient fuel combustion.

PAID SEP 1 5 1981

D.E.R.
SEP 17 1981
SOUTHWEST DISTRICT
TAMPA

RECEIVED
SEP 15 1981
H.C.E.P.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: AIR POLLUTION [ ] New[1] [X] Existing[1]

APPLICATION TYPE: [ ] Construction [X] Operation [ ] Modification

COMPANY NAME: Tampa Electric Company COUNTY: Hillsborough

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Hookers Point Station Boiler 4

SOURCE LOCATION: Street Hemlock Avenue City Tampa

UTM: East 358,000 m North 3,091,000 m

Latitude 27 ° 56 ' 20 "N Longitude 82 ° 26 ' 34 "W

APPLICANT NAME AND TITLE: Tampa Electric Company

APPLICANT ADDRESS: P.O. Box 111, Tampa, Florida 33601

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Tampa Electric Company

I certify that the statements made in this application for an Operating permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Jerry L. Williams

Jerry L. Williams, Manager Environmental Planning
Name and Title (Please Type)

Date: 9-15-81 Telephone No. 813/228-4111

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed: William N. Cantrell

William N. Cantrell
Name (Please Type)

(Affix Seal)

Tampa Electric Company
Company Name (Please Type)

P. O. Box 111, Tampa, Florida 33601
Mailing Address (Please Type)

Florida Registration No. 23494 Date: 9-15-81 Telephone No. 813/228-4111

[1]See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

The source is an oil fired boiler which generates steam to drive a turbine and produce electricity.

B. Schedule of project covered in this application (Construction Permit Application Only) Not Applicable

Start of Construction _____ Completion of Construction _____

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Oil Conversion (Boilers 1-6) $3,069,000 (High Sulfur to Low Sulfur)

Stack Extension (Boilers 1-6) $2,325,000

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

A029-7103 Sept. 27, 1978 to July 1, 1983

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? ____ Yes X No

F. Normal equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ; if power plant, hrs/yr * ;

if seasonal, describe: Not Applicable

G. If this is a new source or major modification, answer the following questions. (Yes or No) Not Applicable

1. Is this source in a non-attainment area for a particular pollutant? _____
   a. If yes, has "offset" been applied? _____
   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
   c. If yes, list non-attainment pollutants.
2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. _____
3. Does the State "Prevention of Significant Deterioriation" (PSD) requirements apply to this source? If yes, see Sections VI and VII. _____
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? _____

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

* Variable

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not Applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): See Section III-E

2. Product Weight (lbs/hr): Not Applicable

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr*			lbs/hr	T/yr	
Sulfur Dioxide	452.1	208.9	1.1 lbs/MMBTU	452.1	452.1	1980	Fig 1
Particulates	41.1	16.5	0.1 lbs/MMBTU	41.1	41.1	180	

*From 1980 Emissions Inventory

D. Control Devices: (See Section V, Item 4) Not Applicable

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5]

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard

[4]Emission, if source operated without control (See Section V, Item 3)

[5]If Applicable

E. Fuels From 1980 Emission Inventory

Type (Be Specific)	Consumption* Gal/Hr		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Fuel Oil	1614	2495	411

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: 0.97 Percent Ash: N.A.

Density: N.A. lbs/gal Typical Percent Nitrogen: N.A.

Heat Capacity: N.A. BTU/lb 149,810 BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N.A. Maximum N.A.

G. Indicate liquid or solid wastes generated and method of disposal.

None

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 280 ft. Stack Diameter: 12 ft.

Gas Flow Rate: 255,000* ACFM Gas Exit Temperature: 255 °F.

Water Vapor Content: _____ % Velocity: 37.6 FPS

*Boilers 3,4

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ days/week _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner [ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.,) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, etc.).
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3, and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained. SEE FIGURE 1
7. An 8½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map). SEE FIGURE 2
8. An 8½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram. SEE FIGURE 3

9. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

NOT APPLICABLE

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?
[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy) [ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:
5. Useful Life:
6. Operating Costs:
7. Energy:
8. Maintenance Cost:
9. Emissions:

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power — KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space and operate within proposed levels:

4.

a. Control Device

b. Operating Principles:

c. Efficiency*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII – PREVENTION OF SIGNIFICANT DETERIORATION

NOT APPLICABLE

A. Company Monitored Data

1. _____ no sites _____ TSP _____ ( ) SO^2* _____ Wind spd/dir

Period of monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

2. Instrumentation, Field and Laboratory

a) Was instrumentation EPA referenced or its equivalent? _____ Yes _____ No

b) Was instrumentation calibrated in accordance with Department procedures? _____ Yes _____ No _____ Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____/_____/_____ to _____/_____/_____
month day year month day year

2. Surface data obtained from (location) _____

3. Upper air (mixing height) data obtained from (location) _____

4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO^2	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

*Specify bubbler (B) or continuous (C).

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

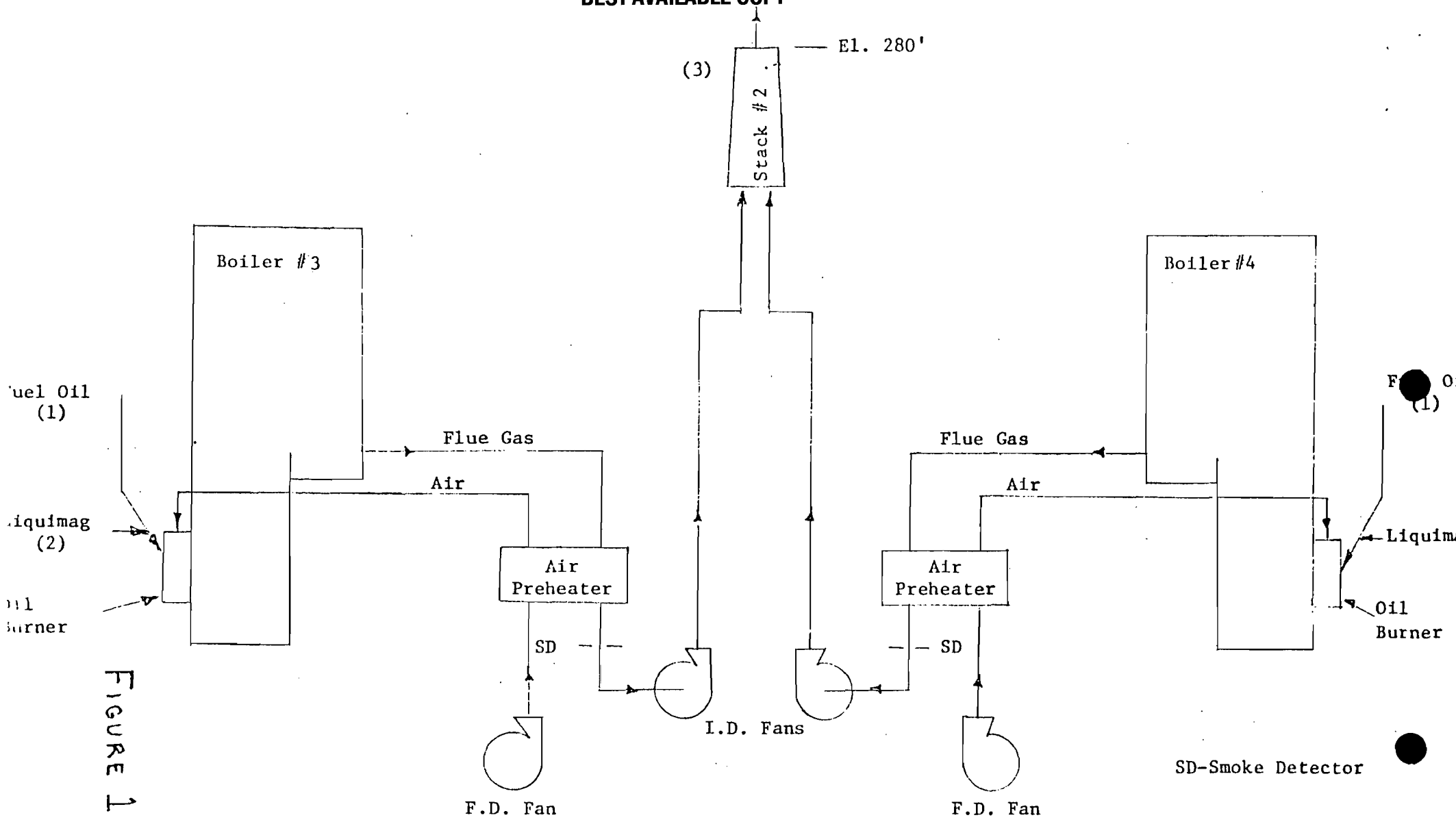


FIGURE 1

Note: There is one Hogging Jet Vent, one Blowdown Tank Vent, two Deaerator Vents, and two Evaporator Vents associated with the combustion of No. 1 and No. 2 Boilers. All these vent lines release steam to the atmosphere periodically.

FLOW DIAGRAM
BOILER NO. 4
TAMPA ELECTRIC COMPANY

FIGURE 3-D1

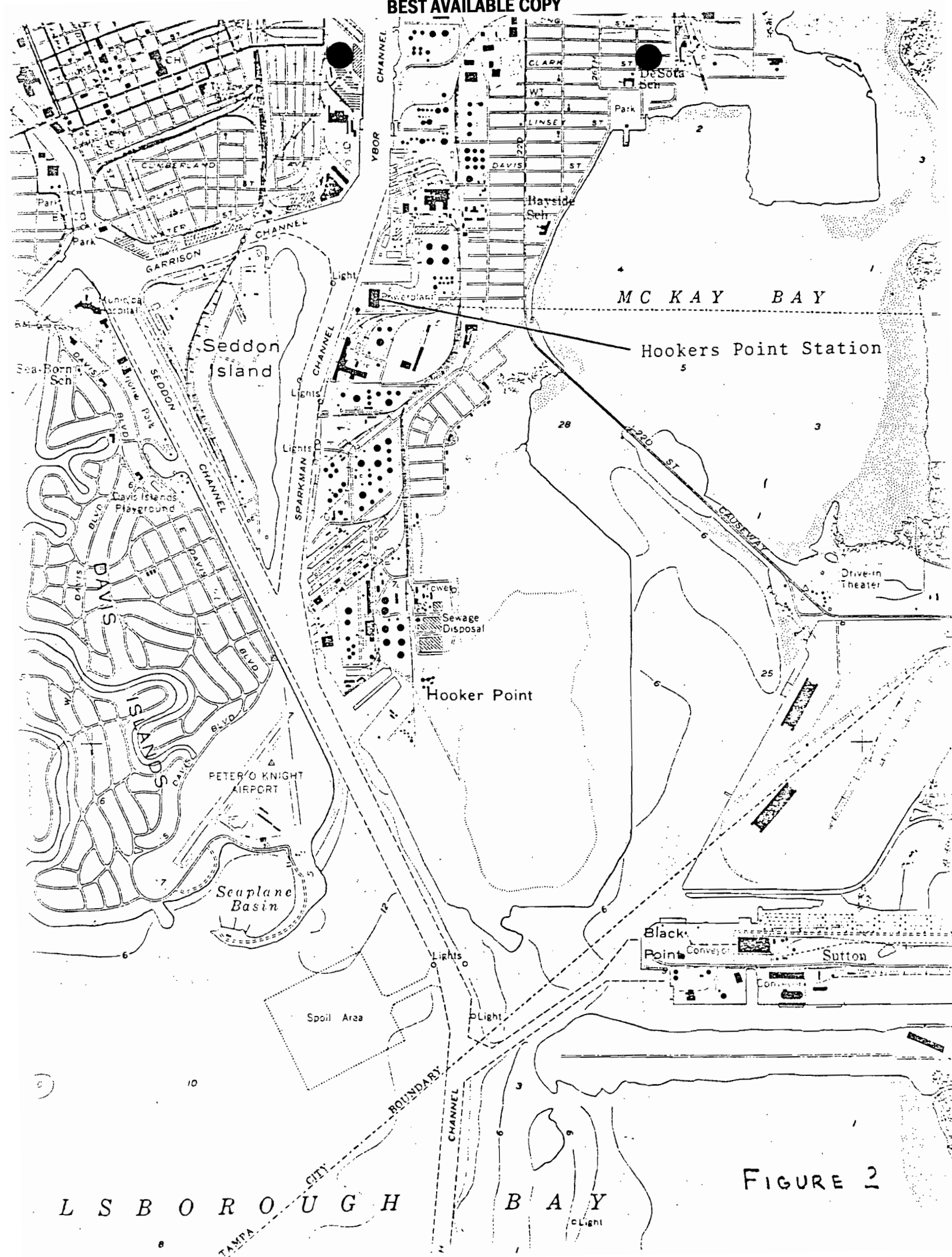
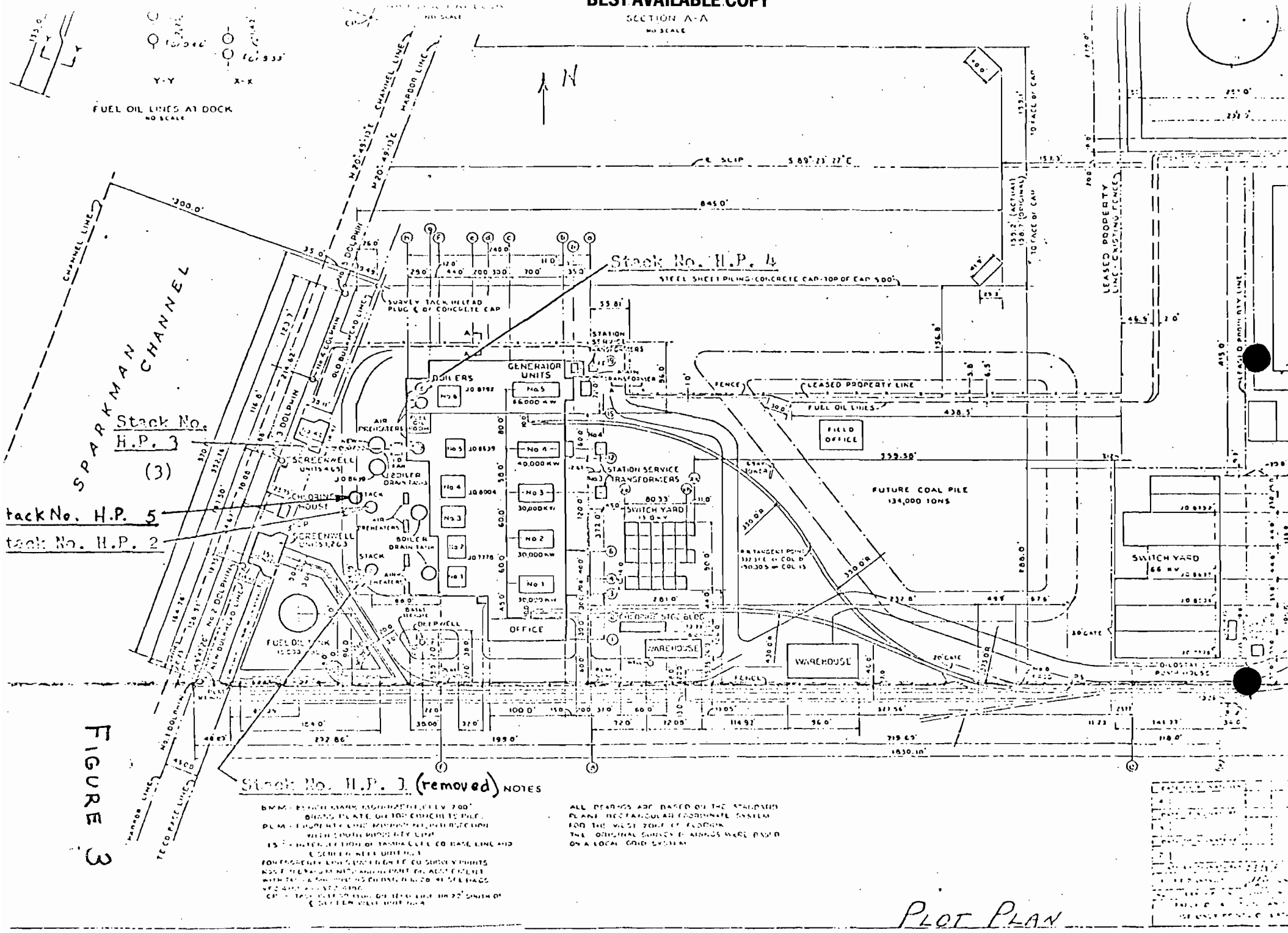


FIGURE 2



NOTES

BMM - BENCH MARK MONUMENTED ELEV 7.00' BRASS PLATE ON TOP CONCRETE PILE.

PLM - PROPERTY LINE MONUMENTED INTERSECTION WITH SOUTH PROPERTY LINE

IS - INTERSECTION OF TAMPA & E.E. CO BASE LINE AND CENTER OF SCREEN WELL UNIT No 1

FOR PROPERTY LINE SURVEY & E.E. CO SURVEY POINTS

ALL BEARINGS ARE BASED ON THE STATE PLANE RECTANGULAR COORDINATE SYSTEM FOR THE WEST ZONE OF FLORIDA. THE ORIGINAL SURVEY BEARINGS WERE BASED ON A LOCAL GRID SYSTEM

FIGURE 3

PLOT PLAN

ATTACHMENT

HOOKERS POINT 4

CALCULATIONS

- Maximum/Allowable Emissions

SO_2 $\frac{1.1 \text{ lbs. } SO_2}{\text{MMBTU}} \times \frac{411 \text{ MMBTU}}{\text{HOUR}} = 452.1 \frac{\text{lbs. } SO_2}{\text{HOUR}}$

Particulate $\frac{0.1 \text{ lbs}}{\text{MMBTU}} \times \frac{411 \text{ MMBTU}}{\text{HOUR}} = 41.1 \frac{\text{lbs. Part.}}{\text{HOUR}}$

- Potential Emissions

SO_2 $\frac{452.1 \text{ lbs. } SO_2}{\text{HOUR}} \times \frac{8760 \text{ Hour}}{\text{YEAR}} \times \frac{1 \text{ Ton}}{2000 \text{ lbs.}} = 1980 \frac{\text{Tons } SO_2}{\text{YEAR}}$

Particulate $\frac{41.1 \text{ lbs.}}{\text{HOUR}} \times \frac{8760 \text{ Hour}}{\text{YEAR}} \times \frac{1 \text{ Ton}}{2000 \text{ lbs.}} = 180 \frac{\text{Tons}}{\text{YEAR}}$

- Test Methods for Compliance

SO_2 - Fuel Analysis

Particulate - EPA Reference Method 17

TECO
TAMPA ELECTRIC COMPANY

POST OFFICE BOX 111 TAMPA, FLORIDA 33601 TELEPHONE (813) 879-4111

September 8, 1981

TO WHOM IT MAY CONCERN:

Please be advised that Jerry L. Williams, Manager of Environmental Planning, is the authorized representative of Tampa Electric Company concerning matters with which this permit application deals.

Very truly yours,

Alex Kaiser
Vice President
Energy Supply

HOOKERS POINT STATION - BOILERS 1 THROUGH 6

Operation and Maintenance Plan

Introduction

Hookers Point Station is owned and operated by Tampa Electric Company. The plant is located on the shore of Hillsborough Bay off Sparkman Channel. The plant consists of six boilers and five turbine generator units. Boilers 1 through 5 are connected to a header system which supplies steam to four turbine generators. Boiler 6 supplies steam to turbine generator number 5.

The Hookers Point boilers burn No. 6 fuel oil. The boiler manufacturers, types, and in service dates are listed below:

BOILER	SERVICE DATE	MANUFACTURER	TYPE
1	1948	Babcock and Wilcox	Front Firing
2	1948	Babcock and Wilcox	Front Firing
3	1950	Babcock and Wilcox	Front Firing
4	1950	Babcock and Wilcox	Front Firing
5	1953	Babcock and Wilcox	Front Firing
6	1955	Combustion Engineering	Front Firing

The boilers exhaust gases through stacks at an elevation of 280 feet.

Process System Performance Parameters

Boiler 1 through 6 burn low sulfur No. 6 fuel oil. Fuel oil quality is monitored upon delivery. In addition, daily samples are taken for a monthly composite analysis. The design fuel consumption and steam flow rates are listed below.

BOILER	DESIGN FUEL CONSUMPTION	DESIGN STEAM FLOW
1	86 BBLS./HR	200,000 lbs./HR
2	86 BBLS./HR	200,000 lbs./HR
3	118.8 BBLS./HR	275,000 lbs./HR
4	118.8 BBLS./HR	275,000 lbs./HR
5	86.2 BBLS./HR	440,000 lbs./HR
6	126 BBLS./HR	625,000 lbs./HR

Actual fuel input to the boilers is monitored continuously and calculated on a weekly basis. Steam flow is monitored and recorded each shift. Fuel oil temperature and pressure are maintained at optimum levels. Temperature is recorded continuously while pressure is recorded each hour. Excess air is monitored and maintained at levels to produce efficient fuel combustion.

Maintenance and Inspection

All generating units of the Tampa Electric Company system are regularly scheduled for periodic maintenance. The schedule for planned maintenance outages is affected by system load and forced outage requirements.

During major outages, the boilers, controls, auxiliaries and duct work are inspected and repaired as necessary. On-going procedures include burner inspections and cleanings, burner tip replacements and maintenance of optimum flame patterns to achieve efficient fuel combustion.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT
7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

REUBIN O'D. ASKEW
GOVERNOR

JOSEPH W. LANDERS, JR.
SECRETARY

September 27, 1978
Tampa Electric Company
HILLSBOROUGH COUNTY - - A.P.

P. David Puchaty
District Manager

Alex Kaiser, Director
Power Plant Engineering
Tampa Electric Company
P. O. Box 111
Tampa, Florida 33601

Dear Mr. Kaiser:

Pursuant to Section 403.061(16), Florida Statutes, your application has been approved by the Department and, therefore, we are issuing to you the enclosed permit no. AO29-7103 which will expire on July 1, 1983

This permit is not effective unless you accept it, including any and all of the conditions contained therein. If you do not choose to accept it, you must file an appropriate petition for a hearing pursuant to the provisions of Section 120.57, Florida Statutes.

A petition for a hearing must comply with the requirements of Florida Administrative Code, Section 28-5.15 and be filed (postmarked) with the Secretary of the Department of Environmental Regulation at Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32301, with a copy to this office within fourteen (14) days from receipt of this letter. Petitions which are not filed in accordance with the above provisions may be subject to dismissal.

Any time limits imposed in the permit are a condition to this permit and are enforceable under Section 403.061, Florida Statutes. You are hereby placed on notice that the Department will review this permit to check for compliance and will initiate enforcement action for violations of the conditions and requirements of this permit.

Your continued cooperation in this matter is appreciated. Please refer to your assigned permit number in all future communications.

Sincerely,

R. Craig McCutchen
for P. David Puchaty
District Manager

cc: Central Files
HCEPC
Bernard D. Kitching, P.E.

Enclosures

RULES OF THE ADMINISTRATION COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

(1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.

(2) All petitions filed under these rules should contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name and address of the petitioner or petitioners;

(c) All disputed issues of material fact. If there are none, the petition must so indicate;

(d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;

(e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;

(f) A demand for the relief to which the petitioner deems himself entitled; and,

(g) Such other information which the petitioner contends is material.

NOTE: At a formal hearing all parties shall have an opportunity to present evidence and argument on all issues involved, to conduct cross-examination and submit rebuttal evidence, to submit proposed findings of fact and orders, to file exceptions to any order or hearing officer's recommended order, and to be represented by counsel.

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION

HILLSBOROUGH COUNTY

OPERATION PERMIT

FOR TAMPA ELECTRIC COMPANY
P. O. BOX 111
TAMPA, FLORIDA 33601

PERMIT NO. AO29-7103 DATE OF ISSUE September 27, 1978

PURSUANT TO THE PROVISIONS OF SECTIONS 403.061 (16) AND 403.707 OF CHAPTER 403, FLORIDA STATUTES AND CHAPTERS 17-4 AND 17-7 FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO:
ALEX KAISER, DIRECTOR, POWER PLANT ENGINEERING AND ENVIRONMENTAL PLANNING

FOR THE OPERATION OF THE FOLLOWING:
HOOKER'S POINT, STATION NO. 4, STEAM GENERATOR, OIL FIRED, SUBJECT TO ATTACHED CONDITIONS OF APPROVAL NOS: 1,2,3,5,6.

LOCATED AT: FOOT OF HEMLOCK STREET, TAMPA
UTM: 358.00E - - 3091.00N

IN ACCORDANCE WITH THE APPLICATION DATED 6/23/78

ANY CONDITIONS OR PROVISOS WHICH ARE ATTACHED HERETO ARE INCORPORATED INTO AND MADE A PART OF THIS PERMIT AS THOUGH FULLY SET FORTH HEREIN. FAILURE TO COMPLY WITH SAID CONDITIONS OR PROVISOS SHALL CONSTITUTE A VIOLATION OF THIS PERMIT AND SHALL SUBJECT THE APPLICANT TO SUCH CIVIL AND CRIMINAL PENALTIES AS PROVIDED BY LAW.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ISSUE UNTIL JULY 1, 1983 OR UNLESS REVOKED OR SURRENDERED AND SHALL BE SUBJECT TO ALL LAWS OF THE STATE AND THE RULES AND REGULATIONS OF THE DEPARTMENT.

for DISTRICT ENGINEER

JOSEPH W. LANDERS, JR.
SECRETARY

ROGER P. STEWART, DIRECTOR
HILLS. CTY. ENV. PROTECTION COMM.

for DISTRICT MANAGER
P. David Puchaty

JG Replaces AO29-2483 101800052003804

DER Form PERM 11-3 (Mar. 76)

State of Florida
Department of Environmental Regulation

OPERATION PERMIT CONDITIONS
FOR AIR POLLUTION SOURCES

Permit No.: AO29-7103 Date: September 27, 1978

An (X) indicates applicable conditions

(X) 1. The permit holder must comply with Florida Statute, Chapter 403 and the applicable Chapters of the Department of Environmental Regulation in addition to the conditions of this permit (Chapter 403.161(1)(b), Florida Statutes).

(X) 2. Test the emissions for the following pollutant(s) at intervals of TWELVE MONTHS from the date APRIL, 1978 and submit a copy of test data to the District Engineer of this agency within fifteen days of such testing (Chapter 17-2.07(1), Florida Administrative Code (F.A.C.)).

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

* Fuel analysis will be accepted in lieu of stack analysis for SO_2

(X) 3. 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).

( ) 4. Submit for this source quarterly reports showing the type and monthly quantities of fuels used in the operation of this source. Also state the sulfur content of each fuel (Chapter 17-4.14, F.A.C.).

(X) 5. 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.

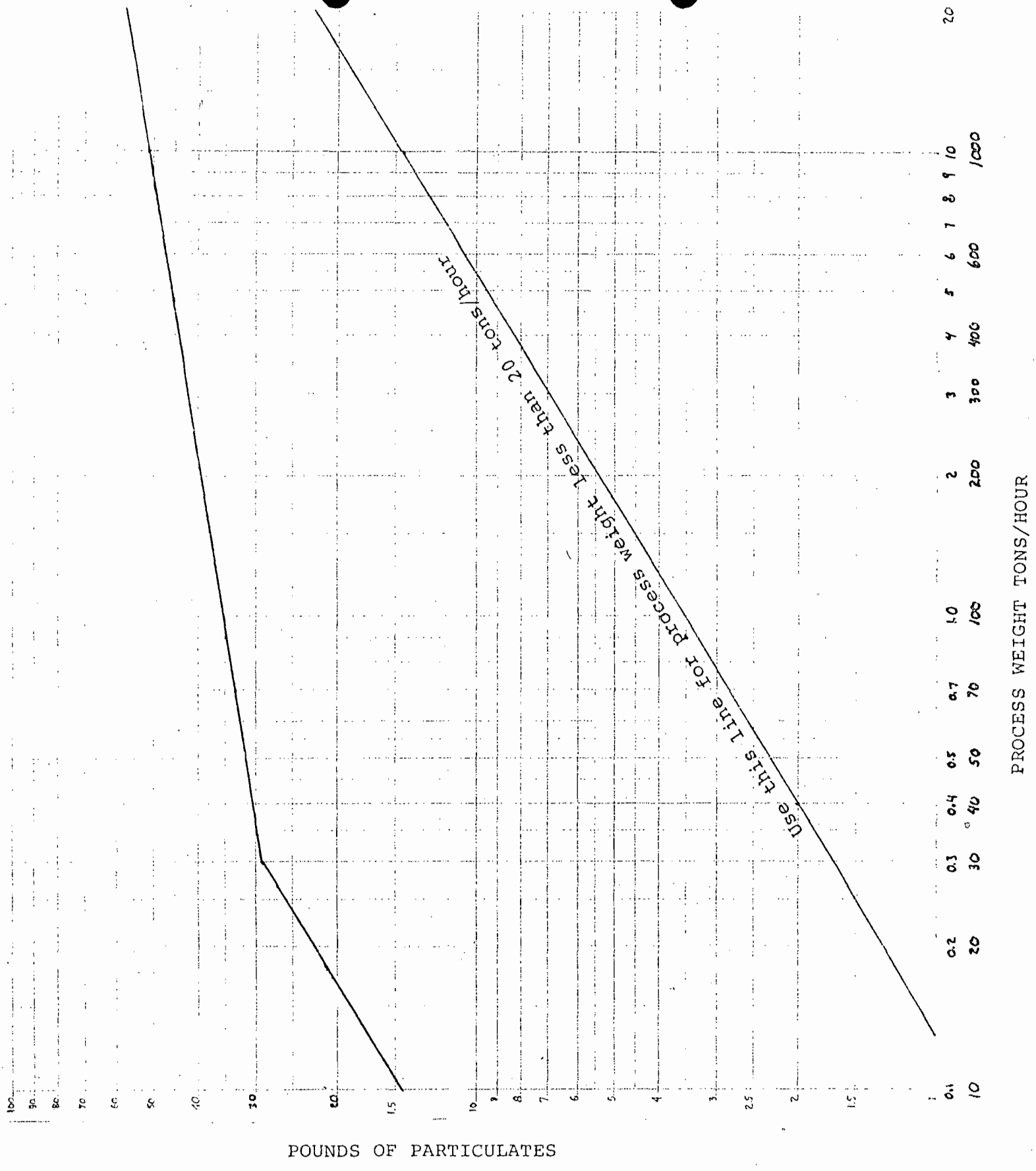
(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

(X) 6. In the event the permittee is temporarily unable to comply with any of the conditions of the permit, the permittee shall immediately notify the District Office of the D.E.R. as per Chapter 17-4.13, F.A.C. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement actions by the Department.

( ) 7. According to the Process Weight Table within Chapter 17-2.04(2), F.A.C., the maximum allowable emission rate of particulate matter for a process rate of _____ tons/hour is _____ pounds/hour. At lesser process rates, the allowable emission rates can be determined from the graph.

( ) 8. This permit is associated with a Development of Regional Impact (D.R.I.). It does not waive any other permits that may be required from this or any other state, federal, or local agency.

PROCESS WEIGHT TABLE



DER PERMIT APPLICATION TRACKING SYSTEM MASTER RECORD

FILE#0000000012435 CONF# DER PROCESSOR:BROWN DER OFFICE:TPA
FILE NAME:ALEX KAISER DATE FIRST REC: 08/14/78 APPLICATION TYPE:AO
APPL NAME:TECO - 7103 APPL PHONE:(813)879-4444 PROJECT COUNTY:29
ADDR:P.O. BOX 444 CITY:TAMPA ST:FLZIP:33601
AGNT NAME:BERNARD D. KITCHING AGNT PHONE:(813)879-4444
ADDR:P.O. BOX 444 CITY:TAMPA ST:FLZIP:33601

ADDITIONAL INFO REQ: / / / / / / REC: / / / / / /
APPL COMPLETE DATE: 09/08/78 COMMENTS REC:N DATE REQ: / / DATE REC: / /
LETTER OF INTENT REC:Y DATE WHEN INTENT ISSUED: / / WAIVER DATE: / /

HEARING REQUEST DATES: / / / / / /
HEARING WITHDRAWN/DENIED/ORDER -- DATES: / / / / / /
HEARING ORDER OR FINAL ACTION DUE DATE: / / MANUAL TRACKING DESIRED:N
RECORD HAS BEEN SUCCESSFULLY UPDATED
FEE PD DATE#1:08/14/78 $0020 RECEIPT#00023730 REFUND DATE: / / REFUND $
FEE PD DATE#2: / / $ RECEIPT# REFUND DATE: / / REFUND $
APPL:ACTIVE/INACTIVE/DENIED/WITHDRAWN/TRANSFERRED/EXEMPT/ISSUED:IS DATE:09/27/78
REMARKS:A029-7103 - (HONKERS POINT #4)

State of Florida

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee	
To:	Loctn.:
To:	Loctn.:
To:	Loctn.:
From:	Date:

TO: P. David Puchaty

THRU: Dan A. Williams

FROM: William H. Brown, II

DATE: September 15, 1978

SUBJECT: TECO - Hookers Point Boiler #4

This unit is a 411 MMBTU/hr. steam boiler using #6 fuel oil, this fuel oil has 1% sulfur. The emission rate from this unit is 389.8 lb/hr. SO_2, 32.5 lb/hr. TSP, allowable is 446.6 lb/hr. SO_2, 40.6 lb/hr. TSP.

These are in compliance with state regulations.

Please see Griffiths reason for a reduced term permit.

I concur and recommend this permit be approved.

WHB/ftb

TECO
Hookers Point #4

File Number A029-7103

PERMIT APPLICATION STATUS SHEET

Type of permit applied for Air Operation

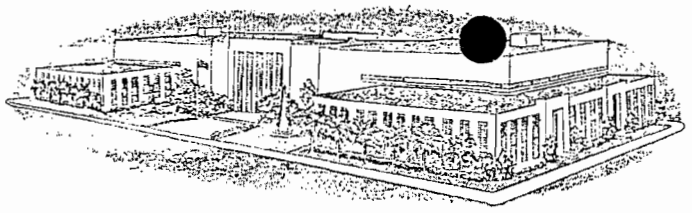
County Hillsborough

Date Recieved 8-14-78

P.E. seal & signature ☑
Check ☑
No check ☐
Letter of corp. standing ☐

CLOCK DAYS		DATE TASK COMPLETED	INITIALS
3	Logging by Sec'y	8-16-78	ff
5	Review by Sec. head and transfer to permitting Engineer	8-23-78	DW
28	Completeness Review		
	request additiona info *		
	information received *		
	Public Notice Published * (for Air Construction only)		
55	Letter of Intent sent to * Supervisor		
60	Letter of Intent submitted * to District Manager		
75	Intent to issue/deny mailed *		
80	Permitting Eng'r submit finished permit package & recommendations to supervisor	9-14-78	[illegible]
83	Permit Package to Dist. Engr.	9-17-78	DW
85	Permit Package to Dist. Manager	9-18-78	DW
90	Final Issuance/denial	9/29/78	RKT

*If needed, If not indicate by N/A



COUNTY HILLSBOROUGH

MEMORANDUM

Date August 10, 1978

To P. David Puchaty, District Manager, SW District DER

From Joe Griffiths, Environmental Protection Commission

Subject: TECO Permits: Hooker's Point 4 & 6, Gannon 1 & 5

Each facility showed compliance during the latest stack test. The reason each source was permitted till July, 1981 is because: All sources are located in the non-attainment area for TSP and may be contributing to the overall problem. If that is the case some changes in operating time, performance standards, start-up procedures, etc. may be required and the changes could be incorporated into the next permit before the January 1, 1982 deadline.

cc: Files

JG/dj

Joe Griffiths agreed to five year permits after a telephone conversation 9/19/78 - Dan Williams

D.E.R.
AUG 14 1978
SOUTHWEST DISTRICT
TAMPA

D.E.R.

AUG 14 1978

SOUTHWEST DISTRICT
TAMPA

0038
04

RECEIVED
JUN 27 1978
H.C.E.P.C.

app rcpt 7-16-78

8-14-78
A029-7103

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

Source Type: Air Pollution [XX] Incinerator [ ]
Type application: [XX] Operation [ ] Construction
Source Status: [ ] New [XX] Existing [ ] Modification

Source Name: Hookers Point Station Boiler 4 County: Hillsborough

Source Location: Street: Foot of Hemlock Street City: Tampa

UTM: East: 358,000m North: 3,091,000m

Appl. Name and Title: Tampa Electric Company
Appl. Address: P.O. Box 111, Tampa, Florida 33601

STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

The undersigned owner or authorized representative of * Tampa Electric Company is fully aware that the statements made in this application for a n operating permit are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules and regulations of the Department or revisions thereof. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted establishment.

Signature of the Owner or Authorized Representative

Date: 6/23/78 Telephone No.:

*Attach a letter of authorization. If applicant is a corporation, a Certificate of Good Standing must be submitted with application. This may be obtained, for a $5.00 charge, from the Secretary of State, Bureau of Corporate Records, Tallahassee, Florida 32304.

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my profesional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the Department. It is also agreed that the undersigned will furnish the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signature: Bernard D. Katching
Name: Bernard D. Katching (Please Type)
Company Name: Tampa Electric Co.
Florida Registration Number: 10-6503
(Affix Seal)

Mailing Address: P. O. Box 111
Tampa, Florida 33601
Telephone No.: 813/879-4111
Date: June 23, 1978

DETAILED DESCRIPTION OF SOURCE

A. Describe the nature and extent of the project. Refer to existing pollution control facilities, expected improvement in performance of the facilities and state whether the project will result in full compliance. Attach additional sheet if necessary.

B. Schedule of Project Covered in this Application (Construction Permit Application Only).

Start of Construction _____

Completion of Construction _____

C. Costs of Construction (Show a breakdown of costs for individual components/units of the project serving pollution control purpose only). Information on actual costs shall be furnished with the application for operation permit.

Oil conversion $3,069,000, December 1977 estimate - Hookers Point 1-6

Stack extension $2,174,000, December 1977 estimate - Hookers Point 1-6

D. For this source indicate any previous DER permit: issuance dates, and expiration dates; and orders and notices.

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code ? .....Yes XX...No

AIR POLLUTION SOURCES & CONTROL DEVICES
(other than incinerators)

A. Identification of Air Contaminants

1) [XX] Particulates
a) [ ] Dust b) [XX] Fly Ash c) [ ] Smoke d) [ ] Other (Identify)

2) [XX] Sulfur Compounds
a) a) [XX] SO_x as SO_2 b) [ ] Reduced Sulfur as H_2S c) [ ] Other (Identify)

3) [XX] Nitrogen Compounds
a) [XX] NO_x as NO_2 b) [ ] NH_3 c) [ ] Other (Identify)

4) [ ] Flourides 5) [ ] Acid Mist 6) [ ] Odor

7) [ ] Hydrocarbons 8) [ ] Volatile Organic Compounds

9) [ ] Other (Specify) _____

B. Raw Materials and Chemicals Used (Be Specific)

Description	Utilization Rate lbs./hr.	Approximate Contaminant Content		Relate to Flow Diagram
		Type	% Wt.	
N.A.				

C. Process Rate:
1) Total Process input Rate* N.A. Units.
2) Product Weight* electricity (megawatts) Units.
3) Normal Operating Time 24 hrs/day, 7 days/week, if seasonal describe: N.A.
hrs./day _____ days/wk. _____ wks/yr. _____

D. Airborne Contaminants Discharged:

Name of Contaminant	Actual** Discharge		Discharge Criteria Rate*	Allowable Discharge Lbs./hr. 1	Relate to Flow Diagram
	lbs./hr.	T/yr.			
Sulfur Dioxide	389.8	320.4	1.1 lbs/MMBTU	446.6	
Particulate	32.5	26.7	0.1 lbs/MMBTU	40.6	
NOTE: (1) Calculated from source test data and fuel analysis data of April 20, 1978.					

*Refer to Chapter 17-2.04(2), Florida Administrative Code.
(Discharge Criteria: Rate=#/ton P_2O_5, #/M BTU/hr., etc.)
**Estimate only if this is an application to construct.

D. Airborne Contaminants Discharged. (Cont'd.)

Name of Contaminant	Hourly Emission ~~XXXXXX~~ lbs/MMBTU	Daily Emission (lb./day)	Yearly Emission (T/yr.)	Basis for Emission Estimate (Test Data, Material Balance)
Sulfur dioxide	0.96	See previous	page	Test data from April 20, 1978 Source Test
Particulate	0.08			-

E. Control Devices:

Name and Type (Model and Serial No.)	Contaminant	Efficiency*	Conditions of Operations	Basis for Efficiency Operational Data, Test, Design, Data)
N.A.				

*See required supplement.
(Include any test data and/or design data for efficiency substantiation)

F. Fuels

Type (Be Specific, includes %S, etc.)	Daily Consumption *[1] gal/hour		Maximum Heat Input MBTU/hr. [1]
	Avg./hr.	Max./hr.	
No. 6 oil (1.0% S annual average)	1679	2495	411
Notes: (1) from 1977 HCEPC Emissions Inventory			

* Units: Natural Gas -MCF/hr.; Fuel Oils, Coal--lbs./hr.

Fuel Analysis: Sample taken during April 20, 1978 stack test.

Percent Sulfur 0.90 Percent Ash N.A.

Density N.A. lb./gal.

Heat Capacity 18,596 BTU/lb. _____ BTU/gal.

Other Fuel Contaminants _____

G. Describe briefly, without revealing trade secrets, the processes/operations generating the airborne emissions identified in this application.

Oil is burned to generate steam which is used to generate electricity.

H. Indicate liquid or solid wastes generated and method of disposal.

N.A.

I. Emission Stack Geometry and Flow Characteristics, (Provide Date for each Stack).

Stack Height 280 ft, Stack Diameter 12 ft.

Gas Flow Rate 255,000 max. / 142,642 avg. ACFM, Gas Exit Temperature 255 °F

J. Required Supplements:

1. Total process input rate and product weight – show deviation. Maximum heat input to boiler is 441 MMBTU/hr. Operating range is from 35% to 100% load.
2. Efficiency Estimation.
   N.A.
3. An 8½" x 11" flow diagram, which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate whether raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particulates are evolved and where finished products are obtained.
   See Figure 3-D1
4. An 8½" x 11" plot plan showing the exact location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
   See Figure 3-D2
5. An 8½" x 11" plot plan showing the exact location of the establishment, and points of airborne emissions in relation to the surrounding area, residences and other permanent structures and roadways.
   See Figure 3-D3
6. If applicable, provide a brief description of the control device or treatment system serving the discharge point for airborne contaminants identified in this application. Include details of the manufacturer, model, size, type and capacity for control/treatment device and the features of the discharge point (height above ground, diameter, period(s) of discharge and discharge temperature).
   N.A.
7. Plans for storm water control during and after construction.
   N.A.

INCINERATOR INFORMATION

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Patho-logical)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs./Hr. incinerated							

Description of Waste _____

Total Weight Incinerated lbs./hr. _____ Design Capacity lbs./hr. _____

Approximate Number of Hours of Operation per Day _____, days/week _____

Manufacturer _____ Model No.: _____

Date Constructed: _____

	Volume (ft. *)³	Heat Release (BTU/hr.)	Fuel		Temp. (°F)
			Type	BTU/hr.	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp.: _____ °F

Type of Pollution Control Device [ ] Cyclone [ ] Wet scrubber [ ] Afterburner
[ ] Other (Specify): _____

Brief Description of Operating Characteristics of Control Device: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.) _____

HOOKERS POINT 4 OPERATING
PERMIT APPLICATION

ACTUAL DISCHARGE

SO_2 $\quad 0.96 \text{ lbs/MMBTU} \times 406 \frac{\text{MMBTU}}{\text{Hr.}} = 389.76 \frac{\text{lbs } SO_2}{\text{Hr.}}$

$389.76 \frac{\text{lbs. } SO_2}{\text{Hr.}} \times \frac{1 \text{ ton}}{2000 \text{ lbs.}} \times 1644 \frac{\text{Hrs.}}{\text{Yr.}} = 320.38 \frac{\text{tons } SO_2}{\text{Year}}$

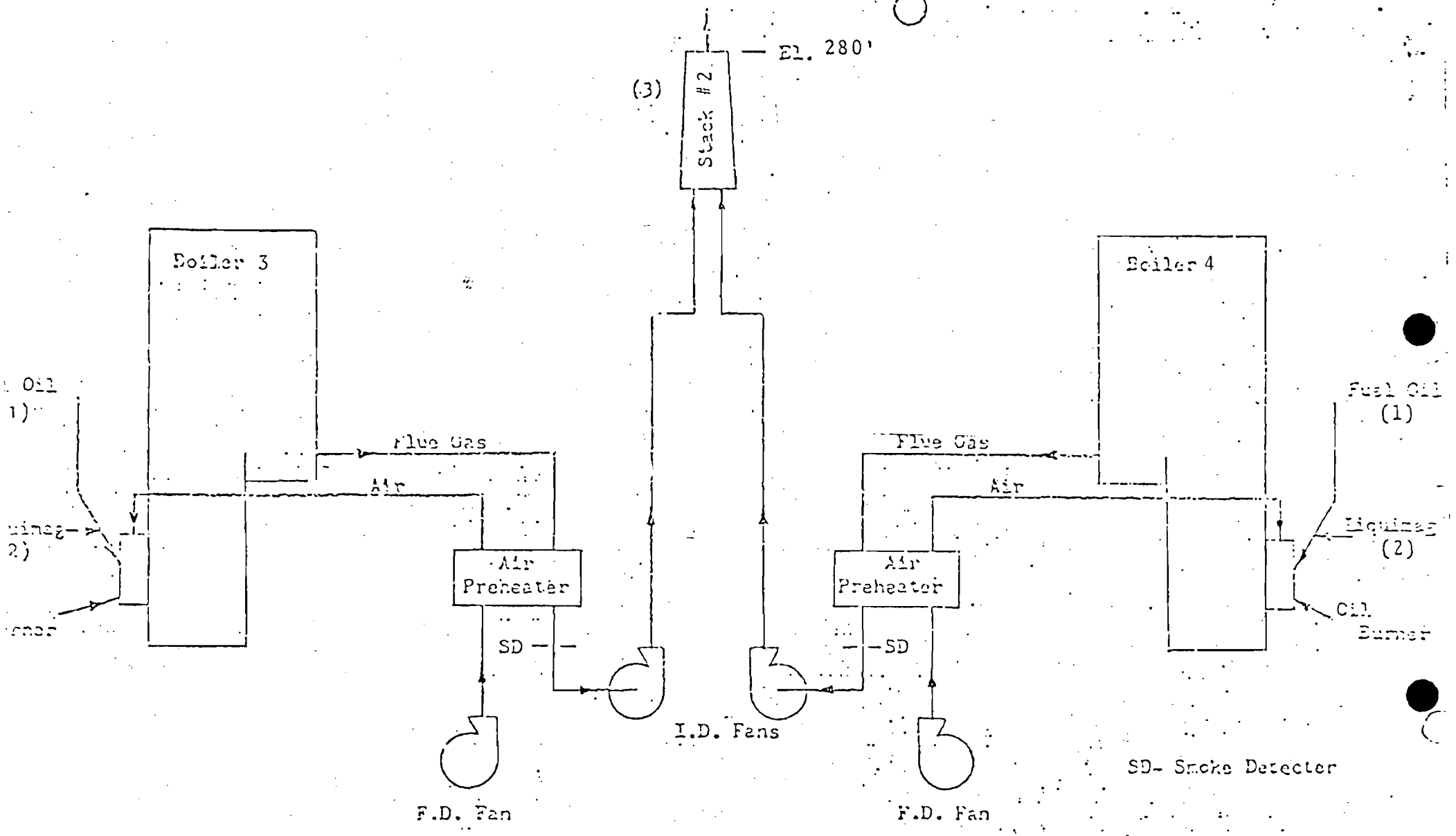
Part. $\quad 0.08 \text{ lbs/MMBTU} \times 406 \frac{\text{MMBTU}}{\text{Hr.}} = 32.48 \frac{\text{lbs part}}{\text{Hr.}}$

$32.48 \frac{\text{lbs part}}{\text{Hr.}} \times \frac{1 \text{ ton}}{2000 \text{ lbs.}} \times 1644 \frac{\text{hrs}}{\text{Yr.}} = 26.70 \frac{\text{tons part}}{\text{Year}}$

ALLOWABLE DISCHARGE

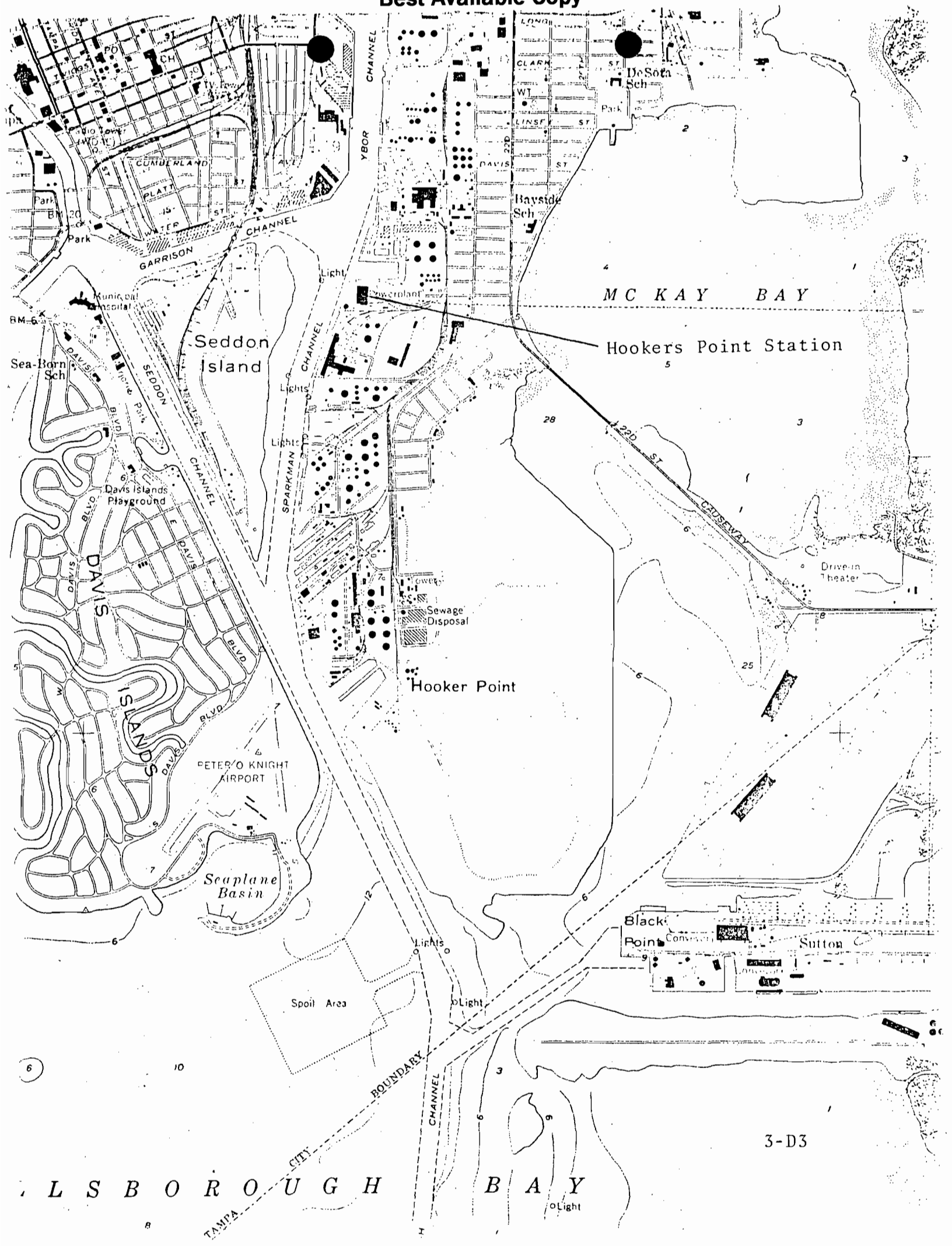
SO_2 $\quad 1.1 \text{ lbs/MMBTU} \times 406 \frac{\text{MMBTU}}{\text{Hr.}} = 446.6 \frac{\text{lbs } SO_2}{\text{Hr.}}$

Part. $\quad 0.1 \text{ lbs/MMBTU} \times 406 \frac{\text{MMBTU}}{\text{Hr.}} = 40.6 \frac{\text{lbs part}}{\text{Hr.}}$



Note: There is one Blowdown Tank Vent, two Hogging Jet Vents, two Deaerator Vents, and one Evaporator Vent associated with the combination of No. 3 and No. 4 Boilers. All these vent lines release steam to the atmosphere periodically.

Flow Diagram
Hookers Point 4
Tampa Electric Co.



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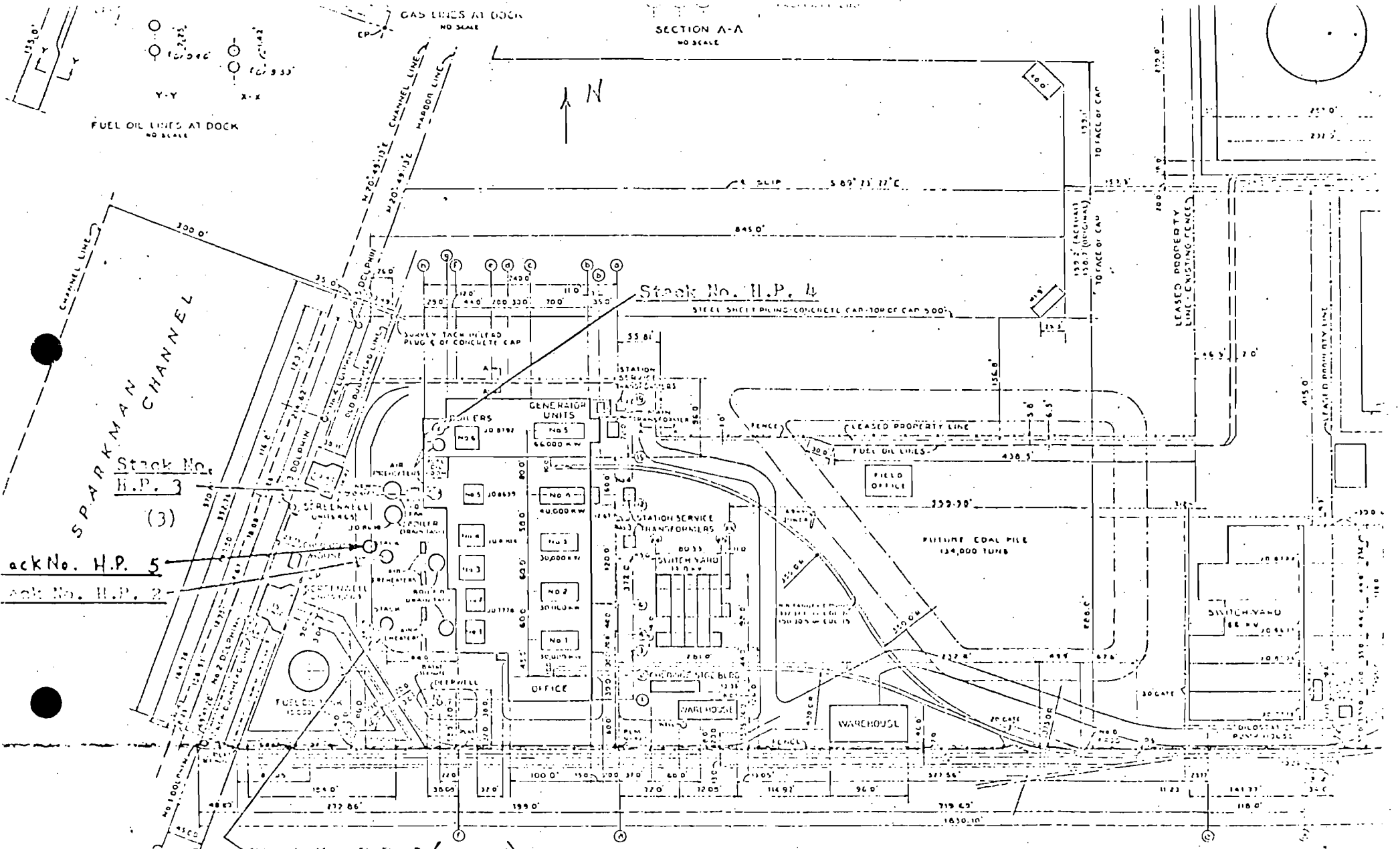


PLOT PLAN

3-D2

BEST AVAILABLE COPY

DATE 9-27-78

NAME OF PERSON COMPLETING FORM W. H. Brown

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AIR PERMIT AND INVENTORY SYSTEM

POINT SOURCE CODING FORM

10 / 5 MOD. 2

ACTIONS		
DELETE	1	
ADD	2	
CHANGE	3	✓

STATE	COUNTY	AQCR	PLANT #	POINT ID
10	18	00	0520	038 04

YEAR OF RECORD	COMPANY NAME	COMPANY MAILING ADDRESS	COMPANY CITY	ZIP CODE	ACTION
16					0

YEAR OF RECORD	CONSTRUCTION PERMIT	ISSUE DATE (M M D D Y Y)	EXPIRATION DATE (M M D D Y Y)	OPERATING PERMIT	ISSUE DATE (M M D D Y Y)	EXPIRATION DATE (M M D D Y Y)	LATITUDE	LONGITUDE	PERMIT TYPE	SOURCE TYPE	ACTION
16	7 0 —			A 0 2 9 — 7 1 0 3	0 9 2 7 7 8	0 7 0 8 8 3					0 9

YEAR OF RECORD	FINAL CONTROL PLAN DATE (M M Y Y)	SUB. OF CONTRACTS TO BE LET (M M D D Y Y)	START CONSTRUCTION (M M D D Y Y)	END CONSTRUCTION (M M D D Y Y)	FINAL COMPLIANCE (M M D D Y Y)	TESTING DATE (M M D D Y Y)	INSPECTION SCHEDULE (J F M A M J J A S O N D)	POLLUTANT (IF APP)	ACTION
16									0 9

YEAR OF RECORD	DESCRIPTION OF POINT SOURCE	ACTION
16		1 0

YEAR OF RECORD	MOST RECENT DATE OF EMISSIONS TESTING FOR PARTICULATES (M M D D Y Y)	MOST RECENT DATE OF EMISSIONS TESTING FOR SO2 (M M D D Y Y)	DUE DATE FOR PARTICULATE EMISSIONS TEST RESULTS (M M D D Y Y)	DUE DATE FOR SO2 EMISSIONS TEST RESULTS (M M D D Y Y)	STATUS CODE	DATE OF RECORDING OF STATUS CODE (M M D D Y Y)	TSP FREQ. (CODE)	SO2 FREQ. (CODE)	MOST RECENT DATE OF INSPECTION BY DEPARTMENT (M M D D Y Y)	VE FREQ. (CODE)	MOST RECENT DATE OF VISIBLE EMISSIONS TEST (M M D D Y Y)	VE - PERM	SOURCE CATEGORY	VE - DER	ACTION
16	0 3 1 5 7 8	0 3 1 3 7 8			A										1 1

BEST AVAILABLE COPY

TYPE PERMIT ACTION		DESCRIPTION OF PRIMARY SOURCE	
New Source (No related permits)	_____	Boiler	_____
Renewed or modified permit	_____	Solid Waste (Incinerat	
Point source deleted	_____	Other Combustion	_____
Point source added	_____	Process	_____
New Source replacing old source	_____	Product (Name)	_____

BRIEF DESCRIPTION OF PROCESS

411 mmBTU Steam Generator #6 fuel oil

OPERATING TIME: _____ HR/Da _____ Da/Wk _____ Wk

STACK DATA		OPERATING DATA	
Height (FT)	_____	Process Rate	_____
Diam. (FT.)	_____	Process Rate	_____ TO
Temp. (°F)	_____	Max Design Rate	_____ #/H
Flow Rate (CFM)	_____	Combustion (Units) Gal	TONS _____ F
Plume Height (FT)	_____	Rate _____ Unit/Hr	_____ Unit
Common Stack (Explain)	_____	Heat Content	_____ BTU/G
		Boiler Capacity	_____ BTU/H
		Max Design Rate	_____ Unit/
		Fuel (Name) #6	%s 1.0 %A

COMMENTS:

$\frac{1679 \times 8 \times .02}{411} = 1.68$ lb/h SO_2 .6 lb/MM BTU

Test 389.8 lb/hr 320 T/y calc 446.6 lb/h SO_2

" 32.5 lb/h 26.7 T/y calc 40.6 lb/h TSP

PERMIT WORK SHEET

SOURCE Teco Hookers Point #4 DATE 9-14-78

COUNTY Hillsborough TYPE PERMIT A029710

ACTION	INITIAL WHEN COMPLETED	DATE
Preliminary Review		
Assigned for Review to		
Review Comments	9-14-78	[illegible]

I have reviewed the plans and applications submitted and find that the above mentioned source will not reasonably be expected to cause pollution in violation of the Department standards, rules and regulations. I recommend approval of this permit.

Number Assigned		
Permit Issued & Signed		
Permit Logged		
Permit Mailed		
Data Forms Completed		
Permit Denied		

EMISSIONS

	lb/hr		lb/ton Product		lb/10^6 BTU		Regulat
	Emission	Allowable	Emission	Allowable	Emission	Allowable	
articulate	325	40.6					
SO_2	389.8	446.6					

ACITY Test _____ Allowable _____

TS FOR ESTIMATE

_____ Stack Test Results Date _____ Report Received _____

_____ V. E. Test Date _____ Report Received _____

_____ Other tests or emission measurement

_____ Material balance of process using engineering knowledge

_____ Emissions calculated using EPA emission factors

_____ Other Method (Describe): _____

PERMIT APPLICATION DATA INPUT SHEET

Section 1

Sequence number assigned by main office
region code [ ] Mo Yr [ ] number [ ]

Source name 1 Tampa Electric Co.

street address Foot Of Hemlock Ave city Tampa

ZIP 33601 county code 29

Section 2

(col 1-10 duplicate) Owner or Agent name 2 H. A. Moshell Jr.

street address P.O. Box 111 city Tampa Zip 33601

Section 3

(col 1-10 duplicate) Application Type code 3 O AP

Industry Type (SIC code) [ ]

Location UTM East U [ ] North [ ]
or
Latitude deg L [ ] min [ ] sec [ ] Longitude deg [ ] min [ ] sec [ ]

Effluent description Boiler #4 Hookers Point Station

Section 4

continued effluent description (if needed)

(col 1-10 duplicate) 4 [ ]

[ ]

Section 5

Liquid effluent disposal and analysis

(col 1-10 duplicate) Type of receiving body - code 5
(surface fresh = 1 , salt = 2 , etc.)
(central sewer system = 7)

Additional description of surface waters - code [ ]
(drainage ditch = 1 , river = 2 , etc.)

station number assigned to influent [ ]

effluent [ ]

Record raw influent and final effluent analysis on water quality report forms, use agency code APPLIC if analysis is from applicant.

effluent flow rate MGD [ ]

5 day BOD load lb/day [ ]

Section 6

Liquid effluent additional remarks

(col 1-10 duplicate) 6 [ ]

[ ]

Section 7

AIR POLLUTION DISPOSAL AND ANALYSIS

(col 1-10 duplicate) Number of discharges this application 7 [1] (11-12)

Number of discharges, this site [ ] (15-17) number currently not permitted [ ] (18-20)

Average total flow rate SCFM [45,900] (21-30)

Total particulate, lb/day [203] (31-40) sulfur oxides, lb/day [10,880] (41-50)

nitrogen oxides, lb/day [ ] (51-60) fluoride lb/day [ ] (61-70)

other pollutants, lb/day [ ] (71-80)

Section 8

SIGNIFICANT DATES AND PERMIT NUMBERS

(col 1-10 duplicate) Use month-day-year, all dates

permit issued 8 [modyyr] (11-12, 17) Permit number [ ] (18-27)

CONSTRUCTION PERMITS AND TEMPORARY PERMITS

Project completion date [ ] (28-33) Permit expires [modyyr] (34-39)

OPERATING PERMITS

Temporary or old construction permit number [ ] (40-49)

Implementation schedule:

A. Estimated filing of application [modyyr] (50-55)

B. Estimated start of construction [ ] (56-61)

C. Estimated date for compliance [ ] (62-69)

29-972

RECEIVED

FEB 26 1971

DEPT. OF A.W.P.C.
WEST CENTRAL REGION
WINTER HAVEN

State of Florida
Department of Air and Water Pollution Control

Application For Permit to Operate Air Pollution Control Facilities

Applicant (Owner or authorized agent): H. A. Moshell, Jr. General Manager of Production
(Name and Title)

Name of Establishment: TAMPA ELECTRIC COMPANY Hookers Point Station - No. 4 Boiler
(Corporation, Company, Political SD, Firm, etc.)

Mailing Address: P.O. Box 111 Tampa, Florida 33601

Location of Pollution Source: Foot of Hemlock Avenue, Tampa
(Number and Street) (City)

Hillsborough
(County)

Nature of Industrial Operation: Generation of Electricity

Permit Applied For Operating:

- New Source ☐
- Existing Source ☒
- Existing Source after modification ☐
- Existing Source after Expansion ☐
- Existing Source After relocation, expansion or reconstruction ☐

Project Engineer:

Name: B. D. Kitching

Firm: TAMPA ELECTRIC COMPANY

Mailing Address: P.O. Box 111, Tampa, Florida 33601

Signature: B D Kitching

Florida Registration Number: 6503

For Department's Use Only Permit No. #4 Unit #4 Date:

The undersigned owner or authorized representative* of TAMPA ELECTRIC COMPANY is fully aware that the statements made in this form and the attached exhibits and statements constitute the application for a Operating Permit from the Florida Department of Air and Water Pollution Control and certifies that the information in this application is true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403 Florida Statutes and all the rules and regulations of the Department or revisions thereof. He also understands that the Permit is non transferable and, if granted a permit, will promptly notify the Department upon sale or legal transfer of the permitted establishment.

H. A. Moshell Jr.

Signature of owner or agent.

H. A. Moshell, Jr.
General Manager of Production

Name and Title

Date: 2-25-71

*Attach letter of authorization.

Information Regarding Pollution Sources
and Proposed Control Facilities

1. Estimated cost of ~~proposed~~ control facilities $ 0.

2. Prepare and attach an 8½" x 11" flow diagram, without revealing trade secrets, identifying the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particulates are evolved and where finished products are obtained.

P. 3-D1

3. Include an 8½" x 11" plot plan showing location of manufacturing processes and location of outlets for airborne emissions. Relate all flows to the flow diagram.

P. 3-D2

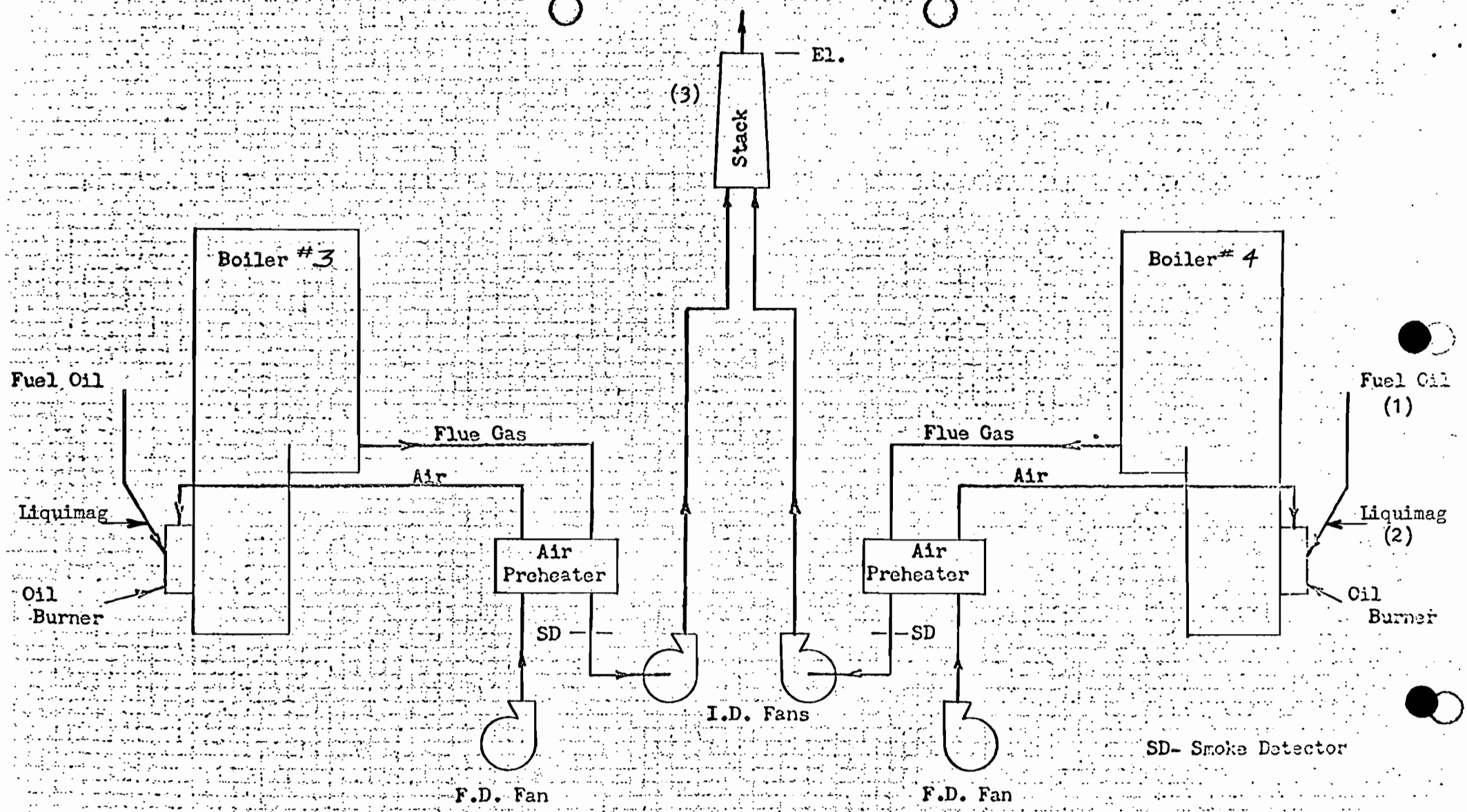
4. Submit an 8½" x 11' plot plan showing the exact location of the establishment and points of discharge in relation to the surrounding area, residences and other permanent structures and roadways.

P. 3-D3

I General

A. Raw Materials and Chemicals Used.

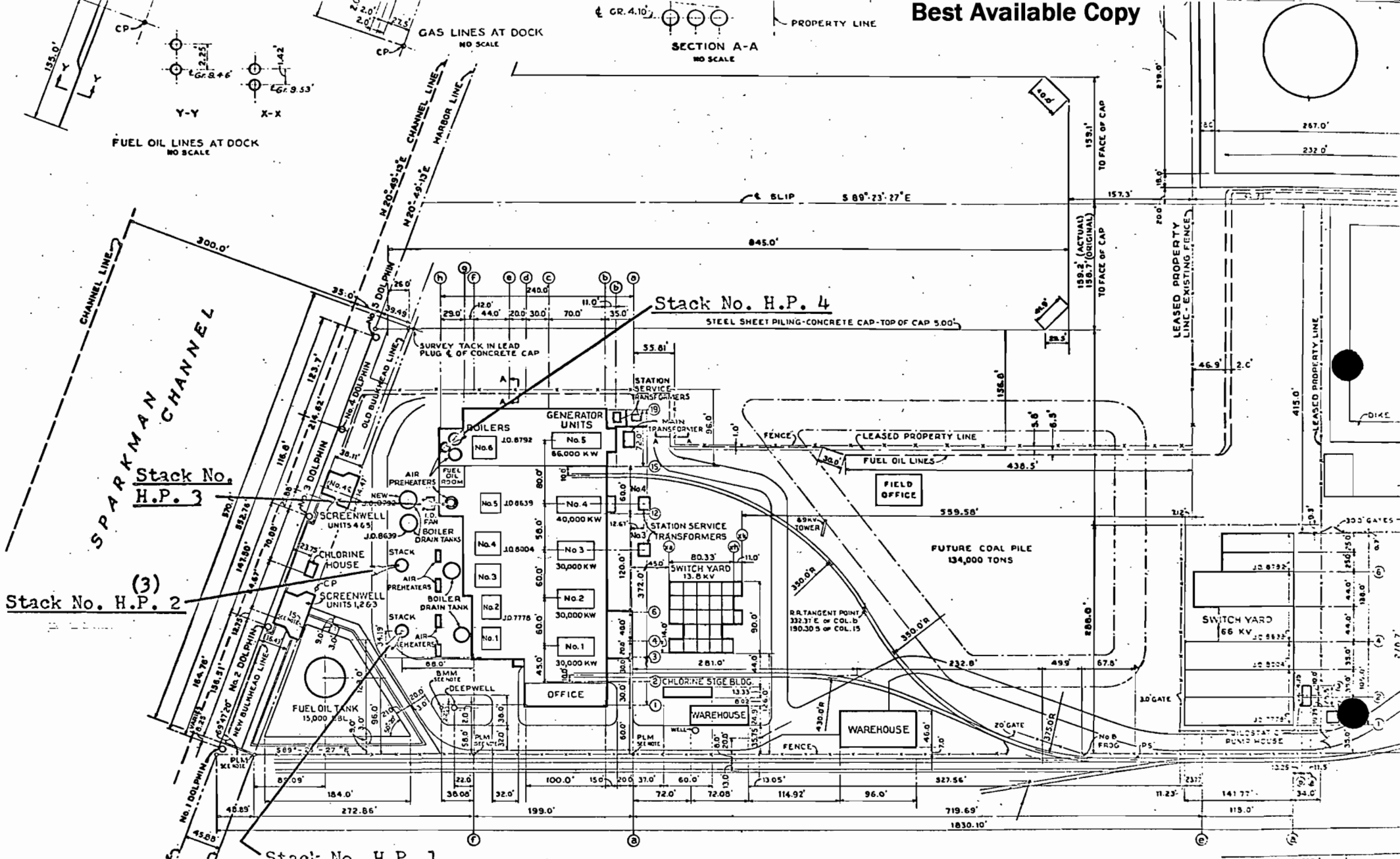
Description	Utilization Tons/day, Lbs./day, etc.	Approximate Contaminant Content		Relate to Flow Diagram
		Type	Percent Dry Weight	
None				



Note: There is one Blowdown Tank Vent, two Hogging Jet Vents, two Deaerator Vents, and one Evaporator Vent associated with the combination of No. 3 and No. 4 Boilers. All these vent lines release steam to the atmosphere periodically.

FLOW DIAGRAM
BOILER No. [redacted] 4
TAMPA ELECTRIC COMPANY

Dwg. No. PD22763-3 2-27-63



NOTES

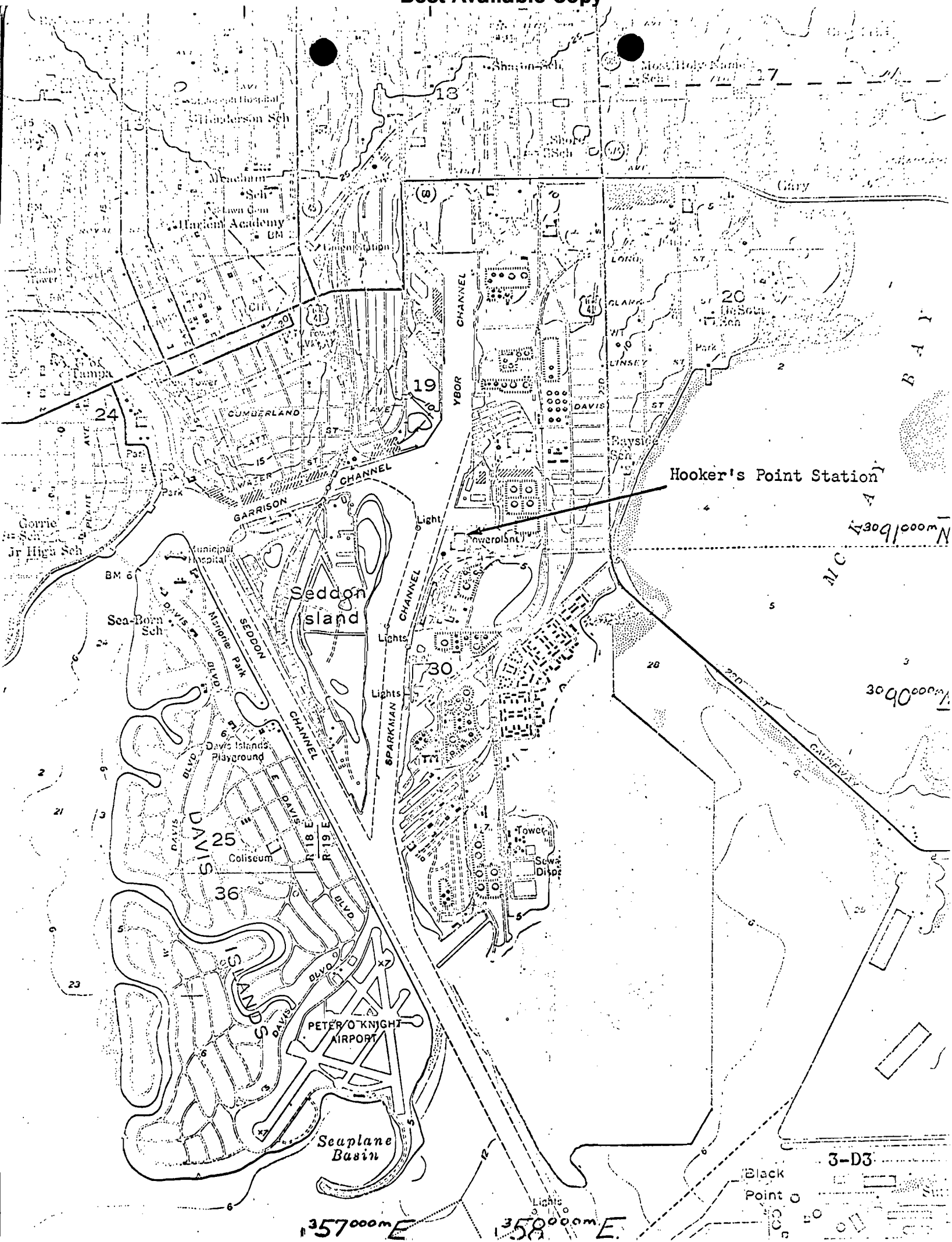
BMM - BENCH MARK MONUMENT, ELEV. 7.00' BRASS PLATE ON TOP CONCRETE PILE.
PLM - PROPERTY LINE MONUMENT, INTERSECTION WITH SOUTH PROPERTY LINE.
IS - INTERSECTION OF TAMPA ELEC. CO. BASE LINE AND ℄ SCREEN WELL UNIT No. 1.
FOR PROPERTY LINES BASED ON T.E. CO. SURVEY PRINTS Nos F-N 63 AND M-N122 AND IN PART ON AGREEMENT WITH TAMPA SHIPBUILDING CO DATED 10-28-41 SEE DWGS VFZ 4185 AND VFZ 4186
CP - TACK IN LEAD PLUG ON TECO LINE 118.22' SOUTH OF ℄ SCREEN WELL UNIT No 4

ALL BEARINGS ARE BASED ON THE STANDARD PLANE RECTANGULAR COORDINATE SYSTEM FOR THE WEST ZONE OF FLORIDA
THE ORIGINAL SURVEY BEARINGS WERE BASED ON A LOCAL GRID SYSTEM

PLOT PLAN

3-D2

Best Available Copy



B. Fuels

48 60 mm BTU/day

Type (Be Specific)	Daily Consumption	Gross Maximum Heat Output	Relate to Flow Diagram
Bunker "C" Fuel Oil	265,000 lb/day	4.86×10^9 BTU/day 202 MMBtu	(1)
Liquimag	117 lb/day	7.45×10^5 BTU/day	(2)

C. Products

Description	Average Daily Production (Tons/Day. Lbs/Hr. etc.)
Electricity	419 MWH/day 17.5 MW

D. Normal operation: Hours/Day 24 hr/day Day and Week 7 day/week

If operation or process is seasonal, describe: _____

allowable
part 486
SO_2 3888

II Identification of Air Contaminants

Compounds of:		Also —			
Chlorine	☐	Hydrocarbons	☐	Acid Mists	☐
Flourine	☐	Smoke	☐	Odors	☐
Nitrogen	☐	Fly Ash	☒	Radioisotopes	☐
Sulfur	☒	Dusts	☐	Other _____	☐

Specific Compounds SO_x

III Air Pollution Control Devices

Contaminant	Control Device	Relate to Flow Diagram	Operating Efficiency	Conditions (Particle Size Range, Temp. etc.)
Ash	None		N/A	N/A
SO_x	None		N/A	N/A

Provide a brief description of the control device or treatment system. Attach separate sheets giving details regarding principle of operation, manufacturer, model, size, type and capacity of control/treatment device and the basis for calculating its efficiency. Show any bypasses of the control device and specify when such bypasses are to be used and under what conditions.

IV. Contaminant Balance

From contaminant content in raw materials, waste products, and manufactured products, summarize daily contaminant flow:

	Pounds Contaminant per Day	
	Input	Output
List Raw Materials:		
Fuel Ash	133	
Fuel Sulfur	5,440	
Fuel MgO Ash	70	
List Manufactured Products:		
Electricity		
List Solid Wastes:		
None		
List Liquid Wastes:		
None		
Totals	5,643	0
Airborne Wastes (Total input minus total output)	5,643	

Note: If more than one contaminant, specify each
Contaminants recovered in control devices should be shown as either a liquid or a solid waste.

V. Discharged Emmissions to Atmosphere

A. Discharge Points and Design Conditions

Discharge Point Description	Relate to Flow Diagram	Height above Ground (ft.)	Cross Sect. Area (sq. ft.)	Periods of Flow Hrs./Day	Days/Yr.	Temp. of Discharge (°F)
Stack	(3)	150	113	23.0	292	305° F

B. Tabulation of Discharged Contaminants

	Discharge Point – Relate to Flow Diagram	Flow Rate at Std. Cond. (efm)	Total Contaminants Discharged: Particulates Gr/ft3 (Std.Cond.)	Particulates lbs./Day	Other Contaminants (PX, SO_2, NOxetc.) Gr/ft3 (Std. Cond.)	Other Contaminants lbs/Day	Other Contaminants Gr/ft3 (Std.Cond)	Other Contaminants lbs/Day
Avg. Cond.	Stack (3)	45,900	0.0223	203	1.200	10,880		
Peak Emission	Stack (3)	88,600	0.0223	-	1.200			
Totals								

NOTE: Standard conditions used are 20° C and 1 atm.

VI. Treatment and Disposal of Liquid and Solid Waste

1. Identify the contaminants which will be discharged as liquid or solid wastes.

   None

2. Describe the treatment and disposal of liquid and solid wastes. Indicate the concentrations and volume of individual contaminants in treated wastes before disposal.

   None

Florida Department of Environmental Regulation

Southwest District • 3804 Coconut Palm • Tampa, Florida 33619

Lawton Chiles, Governor 813-744-6100 Virginia B. Wetherell, Secretary

April 13, 1993

MR LYNN ROBINSON
MGR ENV PLANNING
TAMPA ELECTRIC CO
PO BOX 111
TAMPA FL 33601-0111

Dear Permittee:

RE: Permit Expiration Letters for Non-delegated Facility in Hillsborough County

The Department recently delegated air permitting authority to the Environmental Protection Commission of Hillsborough County, except for a few non-delegated facilities, such as yours. This letter is to advise you that in the future, the Department will not continue the practice of notifying your facility of permits due to expire. This service was provided by the County in the past.

For information purposes only please note the following:

Pursuant to Rule 17-4.080(3), F.A.C., *Modification of Permit Conditions*, the permittee, may, for good cause, request that a construction permit be extended. Such a request shall be submitted to the Department at least 60 days prior to the expiration date of the permit.

Pursuant to Rule 17-4.090(1), F.A.C., *Renewals*, an application to renew an operating permit shall be submitted to the Department no later than 60 days prior to the expiration date of the permit.

Thank you for your cooperation in this matter. If you have any questions, please call Mr. J. Harry Kerns, P.E., District Air Engineer, of my staff at (813)744-6100 extension 419.

Sincerely,

W. C. Thomas, P.E.
Air Program Administrator

WCT/HK/ss

cc: Read file
EPCHC

permitx.ltr

COMMISSION
PHYLLIS BUSANSKY
JOE CHILLURA
PAM IORIO
SYLVIA KIMBELL
JAN KAMINIS PLATT
JAMES D. SELVEY
ED TURANCHIK

FAX (813) 272-5157

ENVIRONMENTAL PROTECTION COMMISSION
HILLSBOROUGH COUNTY

ROGER P. STEWART
EXECUTIVE DIRECTOR
ADMINISTRATIVE OFFICES
AND
WATER MANAGEMENT DIVISION
1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960

AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530

WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788

ECOSYSTEMS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

D.E.R.

DEC 16 1991
SOUTHWEST DISTRICT
TAMPA

M E M O R A N D U M

DATE: December 11, 1991

TO: J. Harry Kerns, P.E. HC

FROM: Sterlin Woodard SKW **THRU:** Jerry Campbell, P.E. JC

SUBJECT: **Permit Renewal - TECO - Hookers Point Unit #4**

Attached is Permit No. AO29-202998 for the operation of the above company's steam generator designated as Unit #4. The unit had been on long-term reserve standby since April 1986. All start-up stack testing has been done (copy attached).

The source is subject to 17-2.600(5)(a) and RACT with a particulate matter emission standard of 0.1 lbs./MMBTU, a SO_2 emission standard of 1.1 lb./MMBTU and a 20% opacity standard, except during one 2 minute period per hour of 40% opacity.

On December 6, 1991, I met with Janice Taylor (TECO) to discuss the draft permit and all issues were resolved.

The EPC/HC recommends issuing the above operating permit. A draft and diskette are enclosed for your review.

SKW:AO202998

PERMIT APPLICATION STATUS SHEET

COMPANY: Tampa Electric Co.

PROCESSOR: G. Maier

PERMIT NO.: A029-202998

DATE RECEIVED: 09/23/91

PE SEAL & SIGNATURE: (Y) N

CHECK: (Y) N

	DATE TASK COMPLETED	INITIALS
DATE RECEIVED BY SECTION:	10/02/91	MQ
LOGGED BY SECTION SECRETARY:	—	—
PERMITTING ENGINEER SUBMIT FINISHED PERMIT PACKAGE & RECOMMENDATIONS TO DISTRICT AIR ENGINEER:	12-17-91	[illegible]
PERMIT PACKAGE TO DISTRICT AIR ADMINISTRATOR:	12/18/91	[illegible]
PERMIT PACKAGE TO DISTRICT DEPUTY ASSISTANT SECRETARY:		
PERMIT PACKAGE MAILED OUT:	DEC 19 1991	MQ

DATA FOLLOW UP

ISSUE DATE UPDATED ON PATS:	DEC 19 1991	MQ
UPDATED ON WANG:	DEC 19 1991	MQ

(10-06-89)

DEC 1 9 1991

APPLICATION TRACKING SYSTEM 10/02/91

APPL NO:202998
APPL RECVD:09/23/91 TYPE CODE:AO SUBCODE:00 LAST UPDATE:10/02/91
DER OFFICE RECVD:TPA DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:~~AIR~~ MAIER
APPL STATUS:AC DATE:09/23/91 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:40 COUNTY:29
(Y/N) N OGC HEARING REQUESTED LAT/LONG:27.56.20/82.26.34
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEGMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:_____
(Y/N) Y LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-_____

PROJECT SOURCE NAME:HOOKERS POINT STATION #4
STREET:FOOT OF HEMLOCK CITY:TAMPA
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:TAMPA ELECTRIC COMPANY
STREET:P.O. BOX 111 CITY:TAMPA
STATE:FL ZIP:33601 PHONE:813-228-4836
AGENT NAME:_____
STREET:_____ CITY:_____
STATE:__ ZIP:_____ PHONE:___-___-____
FEE #1 DATE PAID:__/__/__ AMOUNT PAID:NOFEE RECEIPT NUMBER:_____

B DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE - - - __/__/__
C DATE DER SENT DNR APPLICATION/SENT DNR INTENT - - - - - __/__/__--__/__/__
D DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP. -. __/__/__
E DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
F DATE LAST 45 DAY LETTER WAS SENT - - - - - - - - - - - __/__/__
G DATE FIELD REPORT WAS REQ--REC - - - - - - - - - - - - - __/__/__--__/__/__
H DATE DNR REVIEW WAS COMPLETED - - - - - - - - - - - - - __/__/__

I DATE APPLICATION WAS COMPLETE - - - - - - - - - - - - - 9/23/91
J DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS - - __/__/__
K DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT - - - - __/__/__--__/__/__
L DATE PUBLIC NOTICE WAS SENT TO APPLICANT - - - - - - - - __/__/__
M DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED - - __/__/__
N WAIVER DATE BEGIN--END (DAY 90) - - - - - - - - - - - - __/__/__--__/__/__

COMMENTS:

COMPANY NAME Tampa Electric Co.

Processor JJ

File Number A029-125689

PERMIT APPLICATION STATUS SHEET

Type of permit applied for Air Operation

County Hillsborough

Date Received 10/2/86

P.E. seal & signature ✓
Check ✓
No Check
Letter of Corp. standing

Clock Days		Date Task Completed	Initials
3	Logging by Sec'y	10/6/86	[illegible]
5	Review by Sec. head and transfer to permitting Engineer		
28	Completeness Review		
	request additional info *		
	information received *		
	Public Notice Published * (for Air Construction Only)		
55	Letter of Intent sent to * Supervisor		
60	Letter of Intent submitted to District Manager		
75	Intent to issue/deny mailed*		
80	Permitting Eng'r submit finished permit package & recommendations to supervisor		
83	Permit Package to Dist. Engr.		
85	Permit Package to Dist. Manager	12/29/86	[illegible]
90	Final Issuance/denial		

*If needed, If not indicate by N/A

TO: Teco - Hookers Point File

THRU: W.C. Thomas 12/29/86

THRU: J. Estler

FROM: Tom John

DATE: December 22, 1986

SUBJECT: Recommend that permit Nos.AO29-125685, 125686, 125687, 125689, 125690, and 125691 be issued to TECO Hookers Point Stations No. 1, 2, 3, 4, 5, and 6 respectively

From the information received, both HCEPC and I recommend that permit Nos. AO29-125685, 86, 87, 89, 90, and 91 be issued respectively to TECO Hookers point stations Nos. 1, 2, 3, 4, 5, and 6, as conditioned. All the units are temporarily shut down, but will be returned to service after 1989. A compliance test is to be run on each unit shortly after startup.

APPLICATION TRACKING SYSTEM 10/03/86

APPL NO:125689
APPL RECVD:10/02/86 TYPE CODE:AO SUBCODE:06 LAST UPDATE:10/03/86
DER OFFICE RECVD:TPA DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:ESTERL
APPL STATUS:AC DATE:10/02/86 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:40 COUNTY:29
(Y/N) N DNR REVIEW REQD? LAT/LONG:27.56.20/82.26.34
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEGMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:_____
(Y/N) Y LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-_____

PROJECT SOURCE NAME:HOOKERS POINT STATION BOILER 4
STREET:HEMLOCK AVE. CITY:TAMPA
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:TAMPA ELECTRIC CO.
STREET:P.O. BOX 111 CITY:TAMPA
STATE:FL ZIP:33610 PHONE:813-228-4111
AGENT NAME:A. SPENCER AUTREY
STREET:P.O. BOX 111 CITY:TAMPA
STATE:FL ZIP:33601 PHONE:813-228-4111
FEE #1 DATE PAID:10/02/86 AMOUNT PAID:00500 RECEIPT NUMBER:00105557

B DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE - - - __/__/__
C DATE DER SENT DNR APPLICATION/SENT DNR INTENT - - - - - __/__/__--__/__/__
D DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP. -. __/__/__
E DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
F DATE GOVERNING BODY REQUESTED SURVEY RESULTS/REPORTS - - __/__/__
G DATE FIELD REPORT WAS REQ--REC - - - - - - - - - - - - - - __/__/__--__/__/__
H DATE DNR REVIEW WAS COMPLETED - - - - - - - - - - - - - - __/__/__

I DATE APPLICATION WAS COMPLETE - - - - - - - - - - - - - - __/__/__
J DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS - - __/__/__
K DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT - - - - __/__/__--__/__/__
L DATE PUBLIC NOTICE WAS SENT TO APPLICANT - - - - - - - - __/__/__
M DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED - - __/__/__
N WAIVER DATE BEGIN--END (DAY 90) - - - - - - - - - - - - - __/__/__--__/__/__

COMMENTS:

HOOKERS PT A029-47723

TAMPA ELECTRIC
A TECO ENERGY COMPANY

June 2, 1986

Mr. Bill Thomas
Florida Department of
Environmental Regulation
District Office
7601 Highway 301 North
Tampa, Florida 33610-9544

Re: Tampa Electric Company
Administrative Changes to
Air Permits

Dear Mr. Thomas:

During a recent review of Tampa Electric Company's air permits, administrative inconsistencies were identified that have lead to hardships on us that we feel are not intended by the Department. As shown on the attachment, the inconsistencies involve stack test scheduling, notifications and reporting requirements contained in older air permits. The requested modifications reflect recent changes in Department regulations which depart from previous Department rules or policies.

In order to communicate our concerns and get feedback from the Department, members of my staff met with Mr. Jim Estler of your staff and Mr. Jerry Campbell of the Hillsborough County Environmental Protection Commission on May 29, 1986. Based on this meeting, it is our understanding that neither Mr. Estler nor Mr. Campbell are opposed to modifying the applicable air permits to provide consistency as outlined to them.

Tampa Electric Company respectfully requests that the air permits listed on the attachment be modified to reflect consistent administrative conditions as stated. The requested modification will not change our environmental limits, they only clarify the conditions and time frames for compliance related reports.

We would greatly appreciate an expeditious review of our request for permit modifications, especially as they relate to Units 4, 5 and 6 at Gannon Station which will required compliance testing or excess opacity report submittal in the near future.

D. E. R.

JUN 0 4 1986

SOUTH WEST DISTRICT
TAMPA

TAMPA ELECTRIC COMPANY
P.O. Box 111 Tampa, Florida 33601-0111 (813) 228-4111

Thank you for your cooperation, and, please call me if you have any questions.

Sincerely,

A. Spencer Autry
Manager
Environmental Planning

ASA/jst/004/EE1

Attachment

cc: Jim Estler, FDER
Jerry Campbell, HCEPC

INCONSISTENCIES IN ADMINISTRATIVE PROCEDURES

DER AIR PERMITS
TAMPA ELECTRIC COMPANY (TEC)

The following modifications will provide consistent reporting and administrative requirements for the two major reports required in TEC's air permits:

1. Specify that all annual compliance testing should be done within a 90 day period prior to the specified annual test date. (The regulations require annual test during Fiscal year - October 1 to September 30.)

   The permits below either do not address the 90 day test window, or are more stringent than 90 days:

Source	Permit Number	Specific Condition
Hookers Point		
Unit 1	A029-47726	1
Unit 2	A029-47725	1
Unit 3	A029-47724	1
Unit 4	A029-47723	1
Unit 5	A029-47722	1
Unit 6	A029-47721	1
F.J. Gannon		
Unit 4	A029-80043	4
Unit 5	A029-47728	1
Unit 6	A029-47727	1
Combustion Turbine 1	A029-85099	1
Fly Ash Silo 1	A029-80048	1
Fly Ash Silo 2	A029-80046	1
Economiser Silo	A029-87409	1
Big Bend		
Unit 1	A029-63296	1
Combustion Turbine 1	A029-85100	1

2. Specify that all compliance test notifications be non-written notifications pursuant to 17-2.700(2)(a)5:

The permits below contain a written notification requirement:

Source	Permit Number	Specific Condition
F.J. Gannon		
Combustion Turbine 1	A029-85099	4
Fly Ash Silo 1	A029-80048	5
Fly Ash Silo 2	A029-80046	3
Economiser Ash Silo	A029-87409	3
Big Bend		
Combustion Turbine 1	A029-85100	5

3. Specify that all compliance test submittals shall be within 45 days as required in 17-2.700(7).

The permits below contain a test submittal date more stringent than 45 days.

Source	Permit Number	Specific Condition
Hookers Point		
Unit 1	A029-47726	1
Unit 2	A029-47725	1
Unit 3	A029-47724	1
Unit 4	A029-47723	1
Unit 5	A029-47722	1
Unit 6	A029-47721	1
F.J. Gannon		
Unit 5	A029-47728	1
Unit 6	A029-47727	1

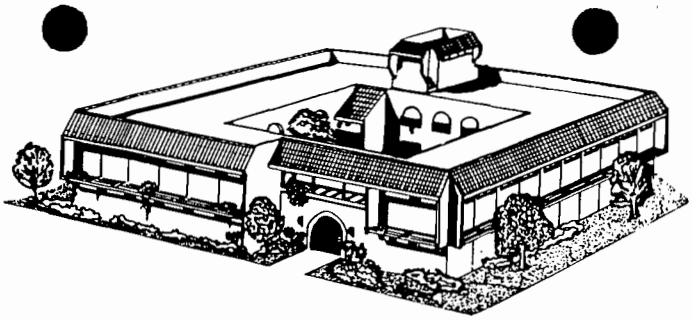
4. Specify that excess emissions refer to 6-minute average opacity.

The permits below either do not address the averaging time or specify a 1-minute average:

Source	Permit Number	Specific Condition
F.J. Gannon		
Unit 4	A029-80043	7
Big Bend		
Unit 1	A029-63296	6

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION
COMMISSION

RODNEY COLSON
RON GLICKMAN
PAM IORIO
RUBIN E. PADGETT
JAN KAMINIS PLATT
JAMES D. SELVEY
PICKENS C. TALLEY II



ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

MEMORANDUM

D. E. R.
JUN 16 1986
SOUTH WEST DISTRICT
TAMPA

Date June 12, 1986

To Jim Estler

From Jerry Campbell JC

Subject: TECO Permit Amendments

Having reviewed TECO's requests in Spencer Autry's letter of June 2, 1986 to Bill Thomas, I recommend approval of the following amendments:

Gannon Unit 4 (A029-80043)
Change Specific condition #4 to read:

4. This unit shall be stack tested for particulate matter (under both soot blowing and non soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of May 30, 1984 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C.

Change specific condition #7 to read:

7. A report shall be submitted to both the Department of Environmental Regulation and the Hillsborough County Environmental Protection Commission within 30 days following each calendar quarter detailing any excess opacity readings recorded during the three month period. For the purpose of this report, excess emission shall be defined as all six minute averages of opacity greater than 20 percent, except as specified in Specific Condition No. 2. The information supplied in this report shall be consistent with the reporting requirements of 40 CFR 51 Appendix P [Section 17-2.710(1), F.A.C.]. This report shall be submitted in duplicate to the Hillsborough County Environmental Protection Commission.

Gannon Unit 5 (A029-47728)
Change specific condtiion #1 to read:

1. This unit shall be stack tested for particulate matter (under both soot blowing and non soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of July 29, 1981 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. Two copies of the test report shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing.

Gannon Unit #6 (A029-47727)
Change Specific condition #1 to read:

1. This unit shall be stack tested for particulate matter (under both soot blowing and non soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of July 29, 1981 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. Two copies of the test report shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing.

Hookers Point Unit #1 (A029-47726)
Change specific condition #1 to read:

1. This unit shall be stack tested for particulate matter (under both soot blowing and non soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of January 27, 1982 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. Two copies of the test report shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing. A fuel analysis may be submitted in lieu of stack testing for sulfur dioxide.

Hookers Point Unit #2 (A029-47725)
Change specific condition #1 to read:

1. This unit shall be stack tested for particulate matter (under both soot blowing and non soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of January 27, 1982 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. Two copies of the test report shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing. A fuel analysis may be submitted in lieu of stack testing for sulfur dioxide.

Hookers Point Unit #3 (A029-47724)
Change specific condition #1 to read:

1. This unit shall be stack tested for particulate matter (under both soot blowing and non soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of January 27, 1982 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. Two copies of the test report shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing. A fuel analysis may be submitted in lieu of stack testing for sulfur dioxide.

Hookers Point Unit #4 (A029-47723)
Change specific condition #1 to read:

1. This unit shall be stack tested for particulate matter (under both soot blowing and non soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of January 27, 1982 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. Two copies of the test report shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing. A fuel analysis may be submitted in lieu of stack testing for sulfur dioxide.

Hookers Point Unit #5 (A029-47722)
Change specific condition #1 to read:

1. This unit shall be stack tested for particulate matter (under both soot blowing and non soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of January 27, 1982 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. Two copies of the test report shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing. A fuel analysis may be submitted in lieu of stack testing for sulfur dioxide.

Hookers Point Unit #6 (A029-47721)
Change specific condition #1 to read:

1. This unit shall be stack tested for particulate matter (under both soot blowing and non soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of January 27, 1982 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. Two copies of the test report shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing. A fuel analysis may be submitted in lieu of stack testing for sulfur dioxide.

Gannon Combustion Turbine #1 (A029-85099)
Change specific condition #1 to read:

1. Test the emissions for the following pollutant(s) at intervals of 12 months from the date March 15, 1984, or within a ninety (90) day period prior to this date, and submit 2 copies of test data to the Air Section of the Hillsborough County Environmental Protection Commission office within forty five days of such testing [Section 17-2.700 (2), Florida Administrative Code, (F.A.C.)].

( )	Particulates	( )	Sulfur Oxides
( )	Fluorides	( )	Nitrogen Oxides
(X)	Opacity	( )	Hydrocarbons
		( )	Total Reduced Sulfur

*Fuel analysis may be submitted for required sulfur dioxide emission test.

Change specific condition #4 to read:

4. The Hillsborough County Environmental Protection Commission shall be notified 15 days prior to compliance testing.

Gannon Fly Ash Silo #1 - 4 (A029-80048)
Change specific condition #1 to read:

1. Compliance with the opacity standard set forth below shall be demonstrated by conducting 30 minute visible emission tests as units #3, #2 & #1 are converted to coal and begin utilizing this silo. By November 15, 1984, 60 days prior to the expiration of construction permit #AC29-41941, a visible emission test shall be submitted while loading the silo from Units #3 & #4. By January 15, 1986, 60 days prior to the expiration of construction permit AO 29-41942, a visible emission test shall be submitted while loading the silo from Units #2, #3 & #4. By January 15, 1987, 60 days prior to the expiration of construction permit AC29-41943, a visible emission test shall be submitted while loading the silo from Unit #1 and two of the remaining 3 units. Thereafter, visible emissions tests shall be conducted while loading the silo from 3 of the 4 units at 12 month intervals. Tests can be conducted within a ninety (90) day period prior to the dates specified above.

Change specific condition #5 to read:

5. The Hillsborough County Environmental Protection Commission shall be notified 15 days prior to compliance testing.

Gannon Fly Ash Silo #5-6 (A029-80046)
Change specific condition #1 to read:

1. Test the baghouse for visible emissions at intervals of twelve months from the date of November 15, 1983 or within a ninety (90) day period prior to this date. The compliance test shall be conducted using EPA Method #9 (opacity). The Method #9 test interval on this source shall be thirty (30) minutes. Two copies of the test data shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing.

Change specific condition #3 to read:

3. The Hillsborough County Environmental Protection Commission shall be notified 15 days prior to compliance testing.

Gannon Economiser Silo (A029-87409)
Change specific condition #1 to read:

1. Test the baghouse for visible emissions at intervals of twelve months from the date of December 4, 1983 or within a ninety (90) day period prior to this date. The compliance test shall be conducted using EPA Method #9 (opacity). The Method #9 test interval on this source shall be thirty (30) minutes. Two copies of the test data shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing.

Change spcific condition #2 to read:

2. The Hillsborough County Environmental Protection Commission shall be notified 15 days prior to compliance testing.

If you have any questions concerning the contents of this memorandum, please contact me.

JC/ch

CH2/16

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

813-985-7402
SunCom - 570-8000

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

DR. RICHARD D. GARRITY
DISTRICT MANAGER

June 12, 1986

Mr. A. Spencer Autry, Manager
Environmental Planning
Tampa Electric Company
Post Office Box 111
Tampa, FL 33601-0111

RE: Modification of Conditions
Permit No. A029-47723

Dear Mr. Autry:

We are in receipt of your request for a modification of the permit conditions. The conditions are changed as follows:

Specific Condition No. 1

From:

1. Test the emissions for the following pollutant(s) at intervals of 12 months from date of permit 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

To:

1. This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of January 27, 1982 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. A fuel analysis can be submitted for the required sulfur dioxide emission test. Two copies of test data shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission Office within forty-five days of such testing.

This letter must be attached to your permit and becomes a part of that permit.

Sincerely,

W. C. Thomas, P.E.
District Air Engineer

JWE/js

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 6-13-86 to the listed persons.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(10), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Jean Sabiecta 6/13/86
Clerk Date

STATE APIS 9-24
COUNTY 9-25

TYPE III

HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION

INSPECTION REPORT
EXECUTIVE SUMMARY

LANT NAME TECO - HOOKERS POINT NEDS 038 DATE/TIME 9-24-85

LANT LOCATION HOOKERS POINT HEMLOCK AVE. # OF NEDS POINTS 6

ROCESS DESCRIPTION ELECTRICAL POWER GENERATION

OMPLIANCE VERIFICATION [X] PERMIT REVIEW ( )
NFORCEMENT ( ) OTHER ( )
NNOUNCED [X] UNANNOUNCED ( )

ERSONS CONTACTED-TITLE BOB STAFFORD / DAVID JELLERSON

EDS POINTS HECKED 03, 04, 06 NEDS POINTS IN COMPLIANCE 03, 04, 06 NEDS POINTS IN VIOLATION 0

JMMARY OF FINDINGS NEDS #3 & #6 REFER TO UNITS #3 & #6 WHICH WERE BOTH DOWN AT THE TIME OF THIS INSPECTION DUE TO SLACK DEMAND FOR POWER. THIS DOWN STATUS WAS EVIDENCED BY BOTH STEAM CHARTS INDICATING A 0 STEAM PRODUCTION IN THESE TWO BOILERS. NEDS #04 REFERS TO UNIT #4 WHICH WAS OPERATING AT A MINIMUM LOAD CAPACITY OF 6,500 POUNDS OF STEAM GENERATING 60 MW OF POWER. THE FUEL CONSUMPTION RATE OF UNIT 4 IS DETERMINED BY A TOTALIZER WHICH KEEPS A RUNNING TALLY IN THE FORM OF GALLONS BURNED. IT SHOULD BE NOTED THAT BOILERS 1 THRU 5 CAN OPERATE ANY ONE OF ANY COMBINATION OF 4 POWER GENERATING TURBINES. UNIT #6 IS DEDICATED TO ONE TURBINE.

SPECTION COMMENTS FOR APIS (LIMIT 50 SPACES)

SPECTOR'S SIGNATURE [signature] / CARLOS GONZALEZ

SECTION III - AIR CLEANING EQUIPMENT

Source Code	Type of Air Cleaning Equipment a,b	Pollutant Removed c	Inlet Gas Temp °F	Inlet Gas Flow Rate ACFM	Maximum Pressure Drop PSI d	Efficiency e	
						Design Percent	Operating Percent
	Not Applicable						

Wet scrubber, electrostatic precipitator, fabric filter, etc.

Please list future equipment separately

c. Pollutants to be covered in this survey are specified in the accompanying instructions.

d. Give maximum normal operating pressure drop across air cleaning system.

e. Give efficiency in terms of pollutant removed.

SECTION IV - STACK AND POLLUTANT EMISSIONS DATA

Stack Data					Estimate of Pollutant Emissions				
Source Code	Height Above Grade Ft.	Inside Diameter at top ft	Exit Gas Velocity ft/sec	Exit Gas Temp °F	Pollutant	Technique	Quantity tons/yr	Average lb/hr	Maximum lb/hr
HP 1	280	11.25	29.14	265	Particulate	Stack Test	4.2	8.4	17.9
					Sulf Dioxide	Fuel Anal.	75.3	150.3	318.9
HP 2	Common With Boiler 1				Particulate	Stack Test	4.1	5.3	11.9
					Sulf.Dioxide	Fuel Anal.	108.6	141.8	318.9
HP 3	280	12.0	16.15	255	Particulate	Stack Test	11.3	9.0	20.6
					Sulf.Dioxide	Fuel Anal.	241.6	192.8	439.8
HP 4	Common With Boiler 3				Particulate	Stack Test	22.2	8.3	20.6
					Sulf.Dioxide	Fuel Anal.	475.2	177.1	439.8

HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION
ANNUAL OPERATING REPORT

Representing Calendar Year 1984
Date Submitted: March 8, 1985

SECTION I - GENERAL INFORMATION

Plant, Institution or Establishment Name: Tampa Electric Company (Hookers Point Station)
Plant Address: P.O. Box 111 (Street) Tampa (City) Florida (State) 33601 (Zip)
Telephone: (813) 228-4838

Person to Contact Regarding This Report A. Spencer Autry Title Manager, Environmental Plannin
Mailing Address: P.O. Box 111 (Street) Tampa (City) Florida (State) 33601 (Zip)

Actual Operating Hours: 24 hrs/day 7 days/wk 52 wks/yr

SECTION II - FUEL COMBUSTION FOR GENERATION OF HEAT OR STEAM

Source Code	Type of Fuel a	Quantity c X 1,000	Annual Consumption b Percent Distribution by Season: Spring March/May	Summer June/Aug	Fall Sept/Nov	Winter Dec/Feb	Hourly Consumption Maximum	Average	Heat Content BTU/Quan	Percent Sulfur d	Percent Ash d
HP 1	No. 6 Oil	929	17.96	28.78	26.35	26.91	1,810	928	151,387	0.99	NA
HP 2	No. 6 Oil	1,340	12.83	33.69	25.60	27.88	1,810	875	151,387	0.99	NA
HP 3	No. 6 Oil	2,983	23.37	14.90	25.27	36.46	2,495	1,190	151,387	0.99	NA
HP 4	No. 6 Oil	5,867	17.25	37.09	28.02	17.64	2,495	1,093	151,387	0.99	NA

a. Coke, bituminous, anthracite, or lignite coal No. 1, 2, 3, 4, 5, or 6 Fuel Oil, Nat. Gas, LPG; Refinery or Coke Oven Gas Etc. Indicate if two or more fuels are burned in the same boiler and provide all data pertinent to each fuel type.

b. Fuel Data Reported on 'as burned' Basis

c. Solid Fuel: Tons, Liquid Fuel: Gals.: Gaseous Fuel: 1000 ft^3

d. If unknown, please give name and address of fuel supplier.

UNIT: 4 HOOKERS POINT 1984

$1093 \frac{\text{GAL. OIL}}{\text{HR}} \times 151{,}387 \frac{\text{BTU}}{\text{GAL.}} = 165.5 \frac{\text{MMBTU}}{\text{HR}}$ (AVG)

DESIGN = $411.0 \frac{\text{MMBTU}}{\text{HR.}}$ (MAX.)

$5{,}867{,}494 \frac{\text{GAL. OIL}}{1984} \times 151{,}387 \frac{\text{BTU}}{\text{GAL.}} = 888{,}262 \frac{\text{MMBTU}}{1984}$ (ACTUAL)

PARTICULATE EMISSIONS

$0.05 \frac{\text{lbs. PART}}{\text{MMBTU}} \times 165.5 \frac{\text{MMBTU}}{\text{HR}} = 8.3 \frac{\text{lbs. PART.}}{\text{HR.}}$ (AVG.)

$0.05 \frac{\text{lbs. PART}}{\text{MMBTU}} \times 411.0 \frac{\text{MMBTU}}{\text{HR}} = 20.6 \frac{\text{lbs. PART}}{\text{HR.}}$ (MAX.)

$0.05 \frac{\text{lbs. PART}}{\text{MMBTU}} \times 888{,}262 \frac{\text{MMBTU}}{1984} \times \frac{1 \text{ TON}}{2{,}000\#} = 22.2 \frac{\text{TONS PART}}{1984}$

SULFUR DIOXIDE EMISSIONS

$1.07^{*} \frac{\text{lbs. } SO_2}{\text{MMBTU}} \times 165.5 \frac{\text{MMBTU}}{\text{HR}} = 177.1 \frac{\text{lbs } SO_2}{\text{HR}}$ (AVG)

$1.07^{*} \frac{\text{lbs. } SO_2}{\text{MMBTU}} \times 411.0 \frac{\text{MMBTU}}{\text{HR}} = 439.8 \frac{\text{lbs. } SO_2}{\text{HR}}$ (MAX)

$1.07^{*} \frac{\text{lbs. } SO_2}{\text{MMBTU}} \times 888{,}262 \frac{\text{MMBTU}}{1984} \times \frac{1 \text{ TON}}{2000 \text{ lb.}} = 475.2 \frac{\text{tons } SO_2}{1984}$

* lbs. SO_2/MMBtu value of 1.07 is a 1984 weighted average.

GANNON STATION 1994

GANNON 1-4 FLYASH SILO

EMISSION = $\left(1.32 \text{ lb/hr}\right)\left(\frac{8021 \text{ hrs op.}}{\text{yr}}\right)\left(\frac{1 \text{ ton}}{2000 \text{ lbs}}\right) = 5.29 \text{ tons/yr}$

GANNON 5+6 FLYASH SILO

EMISSION = $\left(\overset{\text{DESIGN}}{2.07 \text{ lb/hr}}\right)\left(\frac{8021 \text{ hrs. op}}{\text{yr}}\right)\left(\frac{1 \text{ ton}}{2000 \text{ lbs}}\right) = 8.58 \text{ tons/yr.}$

GANNON 4 ECONOMIZER ASH SILO

EMISSION = $\left(\overset{\text{DESIGN}}{0.14 \text{ lb/hr}}\right)\left(\frac{7133 \text{ hrs op.}}{\text{yr}}\right)\left(\frac{1 \text{ ton}}{2000 \text{ lbs}}\right) = 0.50 \text{ tons/yr}$

GANNON

UNIT: 4 YEAR 1984

52.1 TONS/HR × 2,000 lbs./TON × 12361 BTU/lb. = 1,288.0 MMBTU/HR. (AVG)

DESIGN = 1,876 MMBTU/HR. (MAX)

371,425 TONS/YR. × 2,000 lbs./TON × 12,361 BTU/lb. = 9,182,369 MMBTU/1984 (ACTUAL)

PARTICULATE EMISSIONS

0.01 lbs. PART./MM BTU × 1,288.0 MMBTU/HR. = 12.9 lbs. PART./HR. (AVG)

0.01 lbs. PART/MM BTU × 1,876 MMBTU/HR = 18.8 lbs. PART./HR. (MAX)

0.01 lbs. PART./MM BTU × 9,182,369 MMBTU/1984 × 1 TON/2,000 lb = 45.9 TONS PART./1984

SULFUR DIOXIDE EMISSIONS

1.83* lbs. SO_2/MM BTU × 1,288.0 MMBTU/HR = 2,352.0 lbs. SO_2/HR. (AVG)

1.83* lbs. SO_2/MM BTU × 1,876 MMBTU/HR = 3,433.1 lbs SO_2/HR (MAX)

1.83* lbs. SO_2/MM BTU × 9,182,369 MMBTU/1984 × 1 TON/2,000 lb. = 8,401.9 TONS SO_2/1984

* lbs SO_2/MM Btu — value of 1.83 is a weighted average for 1984.

GANNON STATION

GAS TURBINE 1984
FUEL CONSUMED

TOTAL CONSUMPTION = 3174.11 BBLS = 133,313 GALS.
TOTAL GENERATED = 885,000 KWH

AVG % Sulfur = 0.37
AVG Btu/lb = 19,468
AVG Density (lb/gal) = 7.121

AVG Hourly CONSUMPTION = $\frac{133,313 \text{ gal oil } 1984}{120 \text{ hrs. operation}}$ = 1111 $\frac{gal}{hr}$

$V = (133,313 \text{ gals})(7.121 \text{ lb/gal})\left(\frac{1 \text{ yr}}{120 \text{ hrs. op.}}\right)\left(\frac{1}{3600 \text{ sec}}\right)\left(\frac{239.2 \times 10^{-3} \text{ gal}}{\text{lb oil}}\right)\left(\frac{1490°R}{492°R}\right)\left(\frac{1}{95.2 \text{ ft}^2}\right) =$
16.40 fps

$\text{Flow (AVG)} = (16.40 \text{ fps})(95.2 \text{ ft}^3)(60 \text{ sec/min}) = 94,169 \text{ cfm}$

SULFUR DIOXIDE (AVG)

$(133,313 \text{ gal/yr})(7.121 \text{ lb/gal})\left(\frac{.0037 \text{ Ton S}}{\text{Ton oil}}\right)\left(1.9 \frac{\text{Ton } SO_2}{\text{Ton S}}\right)\left(\frac{1 \text{ Ton}}{2000 \text{ lb}}\right) = 3.3 \frac{\text{Ton}}{\text{yr}}$
$(1111 \text{ gal/hr})(7.121 \text{ lb/gal})(.0037 \frac{\text{Ton S}}{\text{Ton oil}})(1.9) = 55.6 \text{ lb/hr.}$

SULFUR DIOXIDE (MAX)

$(1885 \text{ gal/hr})(7.121 \text{ lb/gal})(.0037 \frac{\text{Ton S}}{\text{Ton oil}})(1.9 \frac{\text{Ton } SO_2}{\text{Ton S}}) = 94.4 \text{ lb/hr}$

PARTICULATE (AVG)

$(133,313 \text{ gal/yr})(7.121 \text{ lb/gal})(19468 \frac{\text{Btu}}{\text{Lb}})\left(\frac{0.1 \text{ lb}}{\text{MM Btu}}\right)\left(\frac{1 \text{ Ton}}{2000 \text{ lbs}}\right) = 0.921 \frac{\text{Ton}}{\text{yr}}$
$(1111 \text{ gal/hr})(7.121 \text{ lb/gal})(19,468 \frac{\text{Btu}}{\text{Lb}})\left(\frac{0.1 \text{ lb}}{\text{MM Btu}}\right) = 15.4 \text{ lb/hr.}$

PARTICULATE (MAX)

$(1885 \text{ gal/hr})(7.121 \text{ lb/gal})(19468 \frac{\text{Btu}}{\text{lb}})\left(\frac{0.1 \text{ lb}}{\text{MM Btu}}\right) = 26.1 \text{ lb/hr}$

HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION
AIR POLLUTANT EMISSION REPORT

Representing Calender Year 1984
Date submitted: March 1, 1985

SECTION I - GENERAL INFORMATION

Plant, institution, or establishment name: Tampa Electric Company (Hookers Point Station)
Plant, institution, or establishment address: P.O. Box 111 (Street or Box Number) Tampa (City) FL (State) 33601 (Zip)
Person to contact regarding this report: A. Spencer Autry Title: Manager Environmental Planning Telephone: 228-4838
Mailing address: P.O. Box 111 (Street or Box Number) Tampa (City) FL (State) 33601 (Zip)

NOT APPLICABLE

SECTION II - PROCESS/OPERATIONS EMISSIONS

Normal operating schedule: _____ Hours per day _____ Days per week _____ Weeks per year _____ Hours per year.
Seasonal and/or peak operation period: _____
Dates of annually occurring shutdowns of operations: _____ Additional operating info. enclosed

Source Code.[a]	Processes or Operations Releasing Pollutants to the Atmosphere.[d]	Raw Materials Used for Processes or Operations.				Products of Processes or Operations.[g]				Intermittent Operation Only
		Type	Quantity Hourly Process Rate, lbs.			Type	Quantity Hourly Process Rate, lbs.			
			Annual Average.[f]	Design	Maximum		Annual Average.[f]	Design	Maximum	Average Hours/Week.[h]

a. List a separate code number to represent each source(e.g.,IV-a,IV-b,IV-c,etc.) then enter required data on this page and for the same code number sources in Section III. IV, and V.
b. Multiple sources may be grouped if similar in size and type.
c. Sulfuric acid-contact:aluminum smelting-crucible furnace;cement manufacturing-dry process; etc (See instruction for examples and use approximate identification numbers): other non-listed processes and operations (specify).
d The pollutants to be covered in this report are listed in the accompanying instructions.
e. Sulfur burned:pig, foundry returns, or scrap aluminum melted;limestone, cement rock, clay,iron ore used; etc.
f. Pounds, tons, gallons, barrels, etc.
g. Sulfuric acid produced; aluminum ingots produced; etc.
h. For intermittent processes, indicate average number of hours per week of operation so that estimates of yearly emissions may be obtained.

Form #158-R75-M2

SECTION III - FUEL COMBUSTION FOR GENERATION OF HEAT, STEAM, AND/OR POWER

Source Code[a]	Type of Fuel[b]	Annual Consumption[c]					Hourly Consumption		Heat Content BTU/Quan.[e]	Percent Sulfur[c]	Percent Ash (Solid) Fuel Only[c]
		Quantity[d] X 1,000	Percent Distribution by Season: Spring March/May	Summer June/Aug.	Fall Sept./Nov.	Winter Dec./Febr	Maximum	Average Quantity			
Hookers Point 1	No. 6 Oil	929	17.96	28.78	26.35	26.91	1,810	928	151,387	0.99	NA
Hookers Point 2	No. 6 Oil	1,340	12.83	33.69	25.60	27.88	1,810	875	151,387	0.99	NA
Hookers Point 3	No. 6 Oil	2,983	23.37	14.90	25.27	36.46	2,495	1,190	151,387	0.99	NA
Hookers Point 4	No. 6 Oil	5,867	17.25	37.09	28.02	17.64	2,495	1,093	151,387	0.99	NA

a. List code numbers corresponding to each emissions source reported in Section II.
b. Coke, bituminous coal, anthracite coal, lignite; No. 1, 2, 4, 5, and 6 fuel oil; natural gas; LPG; refinery or coke oven gas; etc. (Note: Indicate if two or more fuels are burned in the same boiler and provide all data pertinent to each fuel type).
c. Fuel data are to be reported on an "as burned" basis.
d. Solid fuel, tons; liquid fuel, gallons; gaseous fuel, 1000 cubic feet.
e. If unknown, please give name and address of fuel supplier.

SECTION IV - AIR CLEANING EQUIPMENT

Source Code	Type of Air Cleaning Equipment[a,b]	Pollutant Removed[c]	Inlet Gas Temperature °F	Inlet Gas Flow Rate ACFM	Maximum Pressure Drop, PSI.	Efficiency[d]: Design Percent	Efficiency[d]: Operating Percent
	Not Applicable						

a. Wet scrubber, electrostatic precipitator, fabric filter, etc.
b. Please list future equipment separately.
c. The pollutants to be covered in this survey are specified in the accompanying instructions.
d. Give efficiency in terms of pollutant removed.
e. Give maximum normal operating pressure drop across air cleaning system.

EMISSIONS TEST RESULTS
HOOKERS POINT XXXXXXXXXX BOILER NO 4
04/28/80

	RUN NO.1	RUN NO.2	RUN NO.3	RUN NO.4	AVERAGE
GAS FLOW RATE					
(DSCFM)	124916.	123797.	125099.	0.	124604.
(ACFM)	202757.	200324.	200231.	0.	201104.
STACK TEMP.(DEG F)	332.5	330.9	328.0	0.0	330.5
% ISOKINETIC	97.7	97.9	98.8	0.0	98.1
% H20	7.590	7.492	6.815	0.0	7.299
GAS VOLUME SAMPLED (DSCF)	33.287	33.062	33.713	0.0	33.354
CONDENSATE VOLUME (ML)	58.0	56.8	52.3	0.0	55.7
METER TEMP.(DEG F)	81.7	83.0	82.1	0.0	82.3
PARTICULATE EMISSIONS (LBS/E+06 BTU)					
ACTUAL	0.0772	0.0852	0.0646	0.0	0.0757
ALLOWABLE	0.1000	0.1000	0.1000	0.1000	0.1000

EMISSION RATES WERE CALCULATED BASED ON THE F FACTOR FOR LIQUID FOSSIL FUELS AND BITUMINOUS COAL CONTAINED IN TITLE 40,CODE OF FEDERAL REGULATIONS PART 60 SUBPART D,SECTION 60.45; F FACTOR: BITUMINOUS COAL=9820,LIQUID FOSSIL FUEL=9220

U.S. EPA
SOURCE TEST CALCULATIONS

PLANT:HOOKERS POINT XXXXXXXXXX		BOILER NO 4	
DATE 04/28/80		RUN NO. 1	
SAMPLE TIME=	108.0 MIN.	NOZZLE DIA.=	0.248 INCH
BAR. PRESS.=	29.94 IN.HG	NOZZLE AREA=	0.0003353 SQ.FT.
STACK PRESS.=	29.94 IN.HG	METER ORIFICE=	0.311 IN.H20
EFF. STACK AREA=	132.732 SQ.FT.	METER VOLUME=	33.764 CU.FT.
CP=	0.84	METER TEMP.=	541.7 DEG.R
ORSAT GAS		STACK TEMP.=	792.5 DEG.R
ANALYSIS:		CONDENSATE VOL.=	58.0 ML.
CO2=	8.00 %	LAB ANALYSIS=	61.2(MG)
O2=	10.80 %	SQRTP=	0.370 IN.H20
CO=	0.0 %	Y=	1.010
N2=	81.20 %	F FACTOR=	9220.0 DSCF/E+06 BTU

****

VWSTD = (0.04714) X (VIC)	2.734	SCF
VMSTD = ((17.647)(VM)(Y)) X (PB + (H / 13.6))/TM	33.287	SCF
BWO = (VWSTD) / (VMSTD + VWSTD)	0.076	
FDA = (1.0) - (BWO)	0.924	
MD = 0.44 (%CO2) + 0.32 (%O2) + 0.28 (%N2 + %CO)	29.712	
MS=(MD X FDA) + (18.0 X BWO)	28.823	
VS = (85.48)X(CP)X(SQRTP) X SQ.RT.(TS / MS X PS)	25.46	FPS
QS = (VS) X (AS) X (60)	202757.	ACFM
QSSTD = (QS) X (FDA) X (528 / TS) X (PS / 29.92)	124916.	SCFMD
I = (TS X ((0.00267 X VIC)+(VMSTD / 17.647))X100) / (TIME X PS X AN X VS X 60)	97.7	%

****

C'S = (0.0154) X (MG) / (VMSTD)	0.0283	GR/SCFD
GRAINS/ACF = (C'S) X (17.647) X (PS) X (FDA) / (TS)	0.0174	GR/ACF
C = (C'S) / (7000)	.404E-05	LB/SCFD
EM = (C'S) X (QSSTD) X (0.00857)	30.311	LBS/HR
E = CF ((20.9) / (20.9 - %O2))	0.0772	LB/E+06 BTU

U.S. EPA
SOURCE TEST CALCULATIONS

PLANT:HOOKERS POINT XXXXXXXXXX		BOILER NO 4	
DATE 04/28/80		RUN NO. 2	
SAMPLE TIME=	108.0 MIN.	NOZZLE DIA.=	0.248 INCH
BAR. PRESS.=	29.94 IN.HG	NOZZLE AREA=	0.0003353 SQ.FT.
STACK PRESS.=	29.94 IN.HG	METER ORIFICE=	0.308 IN.H20
EFF. STACK AREA=	132.732 SQ.FT.	METER VOLUME=	33.617 CU.FT.
CP=	0.84	METER TEMP.=	543.0 DEG.R
ORSAT GAS		STACK TEMP.=	790.9 DEG.R
ANALYSIS:		CONDENSATE VOL.=	56.8 ML.
CO2=	8.00 %	LAB ANALYSIS=	67.1(MG)
O2=	10.80 %	SQRTP=	0.366 IN.H20
CO=	0.0 %	Y=	1.010
N2=	81.20 %	F FACTOR=	9220.0 DSCF/E+06 BTU

****

VWSTD = (0.04714) X (VIC)	2.678	SCF
VMSTD = ((17.647)(VM)(Y)) X (PB + (H / 13.6))/TM	33.062	SCF
BWO = (VWSTD) / (VMSTD + VWSTD)	0.075	
FDA = (1.0) - (BWO)	0.925	
MD = 0.44 (%CO2) + 0.32 (%O2) + 0.28 (%N2 + %CO)	29.712	
MS=(MD X FDA) + (18.0 X BWO)	28.835	
VS = (85.48)X(CP)X(SQRTP) X SQ.RT.(TS / MS X PS)	25.15	FPS
QS = (VS) X (AS) X (60)	200324.	ACFM
QSSTD = (QS) X (FDA) X (528 / TS) X (PS / 29.92)	123797.	SCFMD
I = (TS X ((0.00267 X VIC)+(VMSTD / 17.647))X100) / (TIME X PS X AN X VS X 60)	97.9	%

****

C'S = (0.0154) X (MG) / (VMSTD)	0.0313	GR/SCFD
GRAINS/ACF = (C'S) X (17.647) X (PS) X (FDA) / (TS)	0.0193	GR/ACF
C = (C'S) / (7000)	.446E-05	LB/SCFD
EM = (C'S) X (QSSTD) X (0.00857)	33.159	LBS/HR
E = CF ((20.9) / (20.9 - %O2))	0.0852	LB/E+06 BTU

U.S. EPA
SOURCE TEST CALCULATIONS

```
PLANT:HOOKERS POINT XXXXXXXXXX        BOILER NO 4
DATE   04/28/80                       RUN NO.  3

SAMPLE TIME=            108.0 MIN.    NOZZLE DIA.=          0.248 INCH
BAR. PRESS.=             29.94 IN.HG  NOZZLE AREA=     0.0003353 SQ.FT.
STACK PRESS.=            29.94 IN.HG  METER ORIFICE=        0.308 IN.H20
EFF. STACK AREA=        132.732 SQ.FT. METER VOLUME=       34.219 CU.FT.
CP=                       0.84        METER TEMP.=         542.1 DEG.R
ORSAT GAS                             STACK TEMP.=         788.0 DEG.R
ANALYSIS:                             CONDENSATE VOL.=      52.3 ML.
CO2=                      8.00 %      LAB ANALYSIS=          51.9(MG)
O2=                      10.80 %      SQRTP=               0.367 IN.H20
CO=                       0.0  %      Y=                   1.010
N2=                      81.20 %      F FACTOR=          9220.0  DSCF/E+06 BTU
*****************************************************************************

VWSTD = (0.04714) X (VIC)                                  2.465   SCF
VMSTD = ((17.647)(VM)(Y)) X (PB + (H / 13.6))/TM          33.713   SCF
BWO = (VWSTD) / (VMSTD + VWSTD)                            0.068
FDA = (1.0) - (BWO)                                        0.932
MD = 0.44 (%CO2) + 0.32 (%O2) + 0.28 (%N2 + %CO)          29.712
MS=(MD X FDA) + (18.0 X BWO)                              28.914
VS = (85.48)X(CP)X(SQRTP) X SQ.RT.(TS / MS X PS)           25.14   FPS
QS = (VS) X (AS) X (60)                                   200231.  ACFM
QSSTD = (QS) X (FDA) X (528 / TS) X (PS / 29.92)          125099.  SCFMD
I = (TS X ((0.00267 X VIC)+(VMSTD / 17.647))X100)          98.8   %
     (TIME X PS X AN X VS X 60)
*****************************************************************************


C'S = (0.0154) X (MG) / (VMSTD)                           0.0237   GR/SCFD
GRAINS/ACF = (C'S) X (17.647) X (PS) X (FDA) / (TS)       0.0148   GR/ACF
C = (C'S) / (7000)                                      .339E-05   LB/SCFD
EM = (C'S) X (QSSTD) X (0.00857)                          25.417   LBS/HR
E = CF ((20.9) / (20.9 - %O2))                            0.0646   LB/E+06 BTU

**PROGRAM TERMINATED-END OF DATA***
```

file

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

B.-AP

May 8, 1984

file Hillsborough TECO Big Bend Unit 4 A029-47723

Mr. John B. Ramil, P.E.
Environmental Planning
Tampa Electric Company
P. O. Box 111
Tampa, Florida 33601

Dear Mr. Ramil:

This is to acknowledge the excess emissions summary for the TECO Big Bend Unit No. 4. Your submittal of May 1, 1984 satisfies the reporting requirements for excess emissions monitoring as specified in 40 CFR 60.7 for the first quarter of 1984.

Your cooperation is appreciated.

Sincerely,

E. F. Palagyi

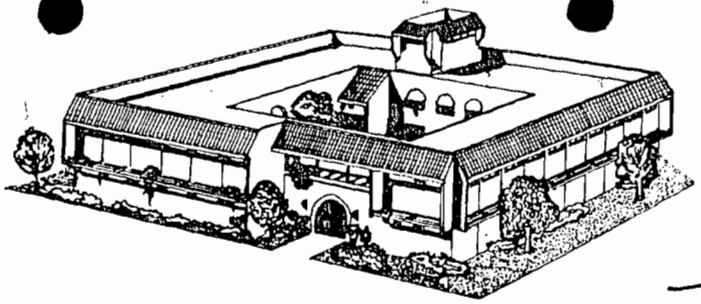
E. F. Palagyi, Engineer
Bureau of Air Quality Management

EP/s
cc: DER SW District

47723

CDJ 5/0

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION
COMMISSION
E. L. BING
RODNEY COLSON
MATT JETTON
JOHN R. PAULK
JAN KAMINIS PLATT



ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

Type II

AUDIT CHECK LIST

COMPANY TECO - Hookers Point UNIT: # ~~2~~ 4 Boiler DATE: 4/17/84

Pollutant(s): TSP / V.E. Method(s): _____

Modification of Standard Methods: _____

PLANT INFORMATION:

Plant ~~Manager~~ Contact: RICH KABAT / E. JONES (Coordinators) Phone: _____

Plant Location: _____

Plant representative during test: 5, 3 team Persons / 2 coordinators.

Test team company name: MR. BENTON (GREG), MARTY, THE OTHER IS THE V.E OBSERVER

Address: _____ Phone: _____

Team Supervisor: _____

Agency Observers	Affiliation

PRODUCTION DATA:

Normal operating hours, Hours/day: N Days/Week: N Wks/Year: N

If intermittent, give average hour/week: _____

Comments: _____

Any variation from normal plant production? _____

FAN DATA:

Manufacturer: _____ Location: _____

Model Number: _____ Serial number: _____ H.P.: _____

RPM, Design: _____ Actual: _____ Voltage, design: _____ Actual: _____

Amperage, design: _____ Actual: _____ Temperature: _____ dp: _____

Condition: _____

File: Hills G-AP
AO [illegible] [illegible]

TECO
TAMPA ELECTRIC COMPANY

POST OFFICE BOX 111 TAMPA, FLORIDA 33601 TELEPHONE (813) 879-4111

July 21, 1980

D.E.R.
JUL 23 1980
SOUTHWEST DISTRICT
TAMPA

Mr. Joe Griffiths
Hillsborough County Environmental
Protection Commission
1900 9th Avenue
Tampa, Florida 33605

RE: Stack Emissions Test
Hookers Point 4
Tampa Electric Company

Dear Joe:

Enclosed please find two (2) copies of a stack test report for an emissions compliance test performed on April 28, 1980.

As stated in the Summary of Results, the average particulate emission rate for three test runs was 0.08 lbs. per million BTU which is in compliance with Florida Administrative Code, Chapter 17-2.05(6)(e)(1)(b)2.b of 0.1 lbs. per million BTU.

Included in the Summary of Results, the average sulfur dioxide emission rate, based on fuel analysis, was 1.01 lbs. per million BTU which is in compliance with Florida Administrative Code, Chapter 17-2.05(6)(e)(1)(b)2.b of 1.10 lbs. per million BTU.

Also included is the nitrogen dioxide emission rate of 0.44 lbs. per million BTU and a process statement and visible emission report.

If you have any questions, please call.

Yours truly,

William N. Cantrell

W.N. Cantrell
Senior Engineer

/mo
Encl.
cc: D. Williams, FDER COPY FOR

TECO
TAMPA ELECTRIC COMPANY

POST OFFICE BOX 111 TAMPA, FLORIDA 33601 TELEPHONE (813) 876-4111

June 1, 1976

Hookers Point

Mr. C. Steelman
Engineer, Air Permitting
Department of Environmental Regulation
9721 Executive Center Drive, North
Suite 200
St. Petersburg, Florida 33702

RE: AO29-2456 Issued December 8, 1975
Gannon Station No. 4

Dear Mr. Steelman:

Enclosed are copies of the operation permit with provisos and a typical quarterly report on our SO_2 emissions at Gannon Station. I hope you find this information useful.

In our meeting Monday, May 24, 1976, we established that semi-annual testing for particulates on our coal fired units at Gannon Station (Nos. 5 and 6) and annual testing for particulates on all of our oil fired units at Gannon Station and Hookers Point would be required. The Big Bend Station is to be evaluated and annual or semi-annual testing requirements will be assessed on a unit-by-unit basis.

It is also our understanding that this data is necessary for a two-year period and that at the end of that period a decision will be made as to what requirements will be placed on these units in the future.

Again, let me state that our company does not feel that it will be in the best interest of our customers

to source test at semi-annual frequencies. Therefore, we strongly urge close examination of the data submitted so that the best and accurate testing frequency be set.

If there are any points that I have not understood and which need clarification, please do not hesitate to call on me.

Sincerely,

Dorian K. Valdes

Dorian K. Valdes
Environmental Engineer
Environmental Planning

DKV:sac

Enclosures

ANNUAL OPERATING REPORT
Calendar year 1976

Submit a separate report for each permitted source by FEBRUARY 28, 1977

SECTION 1: General
SOURCE NAME: Tampa Electric Company (Hookers Point Unit 4)

MAILING ADDRESS: P. O. Box 111 (Attention: Jeff Rankin)
Tampa, Florida 33601

TELEPHONE NO: 813/879-4111

OPERATING PERMIT NO: None

SOURCE DESCRIPTION: Fossil-fuel steam generator

SECTION 2: PROCESS OPERATIONS:

a. DURATION OF OPERATION AND FREQUENCY: 24 hrs/dy 7 dys/wk 52 wk/yr
e.g. 8 hrs perday, 5 dys per wk and 50 wk/yr. actual hours operation 3065

b. DESIGN CRITERIA: MAXIMUM OUTPUT 31 MW (from FPC-67 Form)
e.g. 850 MW, 750 tons/dy

c. ~~NORMAL~~(AVERAGE) OUTPUT 19.5 MW (during actual hours of operation)
e.g. 424 MW, 670 tons/dy.

d. MAXIMUM PEAK THAT OCCURED DURING ANY ONE DAY 31 MW
e.g. 910 MW, 810 tons/dy.

SECTION 3: TOTAL AMOUNT OF MATERIALS USED/PROCESSED, COMPUTED ON THE SAME BASIS AS PROCESS WEIGHT:

TYPE(MATERIAL)	INPUT PROCESS WEIGHT- DRY
	tons/yr
N.A.	N.A. tons/yr
	tons/yr
	tons/yr

SECTION 4: TOTAL AMOUNT OF FUEL USED. IF FUEL IS OIL, SPECIFY WEIGHT, e.g. NO 2, and % sulfur by weight. INCLUDE STANDBY FUELS.

-- 10^6 cu. ft 4982 10^3 gal NO. 6 OIL .94 %SULFUR

-- 10^3 gal PROPANE -- 10^3 gal KEROSENE

-- tons COAL -- 10^6 lb BLACK LIQUOR SOLIDS

-- OTHER, specify type and units

SECTION 5: EMISSION: ESTIMATED/TESTED EMISSIONS (TONS PER YEAR)

a. 36.2 tons of particulates 1352 tons of sulfur dioxide

-- tons of nitrogen dioxide -- tons of carbon monoxide

-- tons of hydrocarbon -- tons (other)

b. ~~SAMPLE~~ METHOD OF CALULATIONS USED IN DETERMINING EMISSION RATES

Particulates - gallons oil X $\frac{BTU}{gal.}$ X $\frac{tons\ part.}{BTU}$ = tons particulate

SO_2 - gallons oil X $\frac{BTU}{gal.}$ X $\frac{tons\ SO_2}{BTU}$ = tons SO_2

ANNUAL OPERATING REPORT
calendar year 1976

SECTION 5(cont't)

c. STACK TESTED: None yet date

STACK TEST CONDITIONS: _____ PROCESS RATE DURING TEST

STACK TEST CONDUCTED BY: _____

STACK TEST WITNESSED BY: _____

SECTION 6: OPERATIONAL PROBLEMS, IF ANY: Routine

a. IMPROVEMENTS MADE TO PROCESS/POLLUTION CONTROL EQUIPMENT: None

b. TYPE OF MAINTENANCE PERFORMED: Routine

c. NUMBER OF UPSETS LASTING MORE THAN FOUR HOURS DURING THE YEAR: 0

d. NUMBER OF UPSETS LASTING MORE THAN ONE HOUR BUT NOT MORE THAN FOUR HOURS: Unknown

e. NUMBER OF UPSETS LASTING LESS THAN ONE HOUR: Unknown

CERTIFICATION:

I HEREBY CERTIFY THAT THE INFORMATION GIVEN IN THIS REPORT IS CORRECT TO THE BEST OF MY KNOWLEDGE.

Alex Kaiser
Signature of owner or authorized representative

Alex Kaiser, Director of Power Plant Engineering
Typed name and title

April 5, 1977
Date