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.: AO29-203002
County: Hillsborough

Enclosed is Permit Number AO29-203002 to operate a 778 MMBTU/hr. steam generator designated as Unit #6, 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;

P 149 931 638

RECEIPT FOR CERTIFIED MAIL
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

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**

(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.

P 149 931 637

RECEIPT FOR CERTIFIED 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	$
TECO A029-202997	
Postmark or Date " -202998	
" " -202999	
" " -203000	
" " -203001	
" " -203002	

PS Form 3800, June 1985

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 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

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 19 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 19 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: AO29-203002
County: Hillsborough
Expiration Date: 12/01/96
Project: Hooker's Point
Station Unit #6

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 778 MMBTU/hr. steam generator designated as Unit #6. This tangential firing type boiler was manufactured by Combustion Engineering 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 No. 6 vents to stack #4, the northern 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: 06

Replaces Permit No.: AO29-125691

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) Opacity**
(X) Sulfur Dioxide*

* 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 (778 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 #6
2) Design Fuel Consumption Rate: 126 barrels per hour
3) Steam Flow: 625,000 pounds per hour
4) Operating Temperature: 950° F.
5) Operating Pressure: 1450 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

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

A029-203802

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

Source Type: Air Pollution Renewal of DER Permit No. A029-125691

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 6

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 5/30/91

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 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	77.6*	126.0	778

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 1984 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
Date

228-4836
Telephone No.

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

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 NO. 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 (^{o}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,

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

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

813-985-7402
SunCom - 570-8000

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

PERMIT/CERTIFICATION
Permit No.: AO29-125691
County: Hillsborough
Issuance Date: 12-29-86
Amended Date: 1-14-87
Expiration Date: 12-22-91
Project: Hooker's Point
Station Unit # 6

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 778 MMBTU/hr steam generator designated as Unit #6. 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. 6 has its own stack exhaust.

Location: At the foot of Hemlock Street, Tampa.

UTM: 17-358.0E 3091.0N NEDS NO: 0038 Point ID: 06

Replaces Permit No.: AO29-47721

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. 6
(2) Design Fuel Consumption Rate: 126 barrels per hour
(3) Steam Flow: 625,000 pounds per hour
(4) Operating Temperature: 950 degrees F
(5) Operating Pressure: 1450 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.].

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

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 #6

Enclosed is Permit Number AO29-125691 to operate a 778 MMBTU/hr steam generator designated as Unit #6, 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. G. [signature] 12/29/86
Clerk Date

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

813-985-7402
SunCom - 570-8000

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

PERMIT/CERTIFICATION
Permit No.: AO29-125691
County: Hillsborough
Expiration Date: 12-22-91
Project: Hooker's Point
Station Unit #6

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 778 MMBTU/hr steam generator designated as Unit #6. 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. 6 has its own stack exhaust.

Location: At the foot of Hemlock Street, Tampa.

UTM: 17-358.0E 3091.0N NEDS NO: 0038 Point ID: 06

Replaces Permit No.: AO29-47721

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.].

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.
1986

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

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

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. Stokes

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

[redacted]

2-65563
CHECK NO.
65563

TAMPA ELECTRIC
A TECO ENERGY COMPANY

POST OFFICE BOX 111
TAMPA, FLORIDA 33601

PAY:

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

TO THE ORDER OF FLORIDA DEPT OF ENVIRONMENTAL REGULATION

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	FLO004	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. 6
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
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

PAID OCT 2 1986

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

A029-125691

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. A029-47721

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 6.

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, deacribe on a separate sheet and attach.

3. Attach the last compliance test report required per permit conditions if not submitted previously. Submitted 2/13/86.

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	Contaminant %Wt	Utilization Rate lbs/hr

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

C. Fuels

Type (Be Specific)	Consumption* BBLS/HR Avg/hr*	Consumption* BBLS/HR Max/hr**	Maximum Heat Input (MMBTU/hr)
Fuel Oil	77.6*	126.0	778

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]
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
Date

(813) 228-4111
Telephone No.

NOTARY PUBLIC
9/25/86 [signature]
NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. NOV 14,1989
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
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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

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. Stoer

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

PAY:

DATE 09 24 86

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

TO THE ORDER OF FLORIDA DEPT OF ENVIRONMENTAL REGULATION

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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. 6
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. A029-47721

Company Name: Tampa Electric Company County: Hillsborough

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

Hookers Point Station Boiler 6.

Source Location: Street: Hemlock Avenue City: Tampa

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3. Attach the last compliance test report required per permit conditions if not submitted previously. Submitted 2/13/86.

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

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I. Please provide the following information if applicable:

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

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

C. Fuels

Type (Be Specific)	Consumption* Avg/hr*	Consumption* BBLS/HR Max/hr**	Maximum Heat Input (MMBTU/hr)
Fuel Oil	77.6*	126.0	778

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
Date

(813) 228-4111
Telephone No.

NOTARY PUBLIC

9/25/86

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

ATTACHMENT A

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

Process System Performance Parameters

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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. Stael

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

NCNB NATIONAL BANK OF FLORIDA • TAMPA, FLORIDA

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65447	092486	HIL076	HILLSBOROUGH COUNTY B	2,070.00

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

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B E Bedford

W. H. Stoll

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NCNB NATIONAL BANK OF FLORIDA • TAMPA, FLORIDA

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

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September 25, 1986

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

P.O. Box 111
Address

Tampa, Florida 33601
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9/25/86
Date

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NOTARY PUBLIC

9/25/86

NOTARY PUBLIC, STATE OF FLORIDA
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A TECO ENERGY COMPANY

POST OFFICE BOX 111
TAMPA, FLORIDA 33601

PAY:

DATE 09 24 86

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W.H. Stokes

ONLY ONE SIGNATURE REQUIRED ON CHECKS OF $2500.00 OR LESS

NCNB NATIONAL BANK OF FLORIDA • TAMPA, FLORIDA

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

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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. 6
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
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. A029-47721

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 6.

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 2/13/86.

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	77.6*	126.0	778

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
Date

(813) 228-4111
Telephone No.

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

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.

DER PERMIT APPLIC TION TRACKING SYSTEM MASTER RECORD

FILE#000000047721 COE# DER PROCESSOR:GARRETT DER OFFICE:TPA
FILE NAME:TAMPA ELECTRIC CO. DATE FIRST REC: 09/15/81 APPLICATION TYPE:AO
APPL NAME:TAMPA ELECTRIC CO. APPL PHONE:(813)223-4111 PROJECT COUNTY:29
ADDR:P.O. BOX 111 CITY:TAMPA ST:FLZIP:33601
AGNT NAME:WILLIAM N. CANTRELL AGNT PHONE:(813)228-4111
ADDR:P.O. BOX 111 CITY:TAMPA ST:FLZIP:33601

ADDITIONAL INFO REQ: / / / / / / REC: / / / / / /
APPL COMPLETE DATE: 09/15/81 COMMENTS NEC:N DATE REQ: / / DATE REC: / /
LETTER OF INTENT NEC:Y DATE WHEN INTENT ISSUED: / / WAIVER DATE:01/31/82

HEARING REQUEST DATES: / / / / / /
HEARING WITHDRAWN/DENIED/ORDER -- DATES: / / / / / /
HEARING ORDER OR FINAL ACTION DUE DATE: / / MANUAL TRACKING DESIRED:N
*** RECORD HAS BEEN SUCCESSFULLY UPDATED *** 01/29/82 11:03:25
FEE PD DATE#1:09/17/81 $0020 RECEIPT#00054851 REFUND DATE: / / REFUND $
FEE PD DATE#2: / / $ RECEIPT# REFUND DATE: / / REFUND $
APPL:ACTIVE/INACTIVE/DENIED/WITHDRAWN/TRANSFERRED/EXEMPT/ISSUED:IS DATE:01/27/82
REMARKS:TECO
HOOKERS POINT STATION BOILER 6

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT
7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

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 AO29-47721, 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
[redacted]
SECRETARY
Vicki Tschinkel
WILLIAM K. HENNESSEY
DISTRICT MANAGER

APPLICANT:

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

PERMIT/CERTIFICATION NO. AO29-47721

COUNTY: Hillsborough

PROJECT: FFSG No. 6
Hooker's 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 778 MMBTU/hr heat input steam generator No. 6, oil fired.

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

UTM: 17-358.0E and 3091.0N

Replaces Permit NO: AO29-7104 NEDS NO: 0038 Point ID: 06

Expires: January 25, 1987

DER FORM 17-1.122(63) 1/4 (1/80)

PERMIT NO.: AO29-47721
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 personnei 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

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

*Fuel analysis is acceptable

2. Testing of emissions must be accomplished at approximately the rates as stated in the application. Failure to submit the input rates or operation at conditions which do not reflect actual operating conditions may invalidate the data [Chapter 403.161(1)(c), Florida Statutes].

3. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Chapter 17-4.14, F.A.C.

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

4. Particulate emission limits for this unit is 0.1 lb TSP/MMBTU heat input per F.A.C., 17-2.650(2)(c)2.

5. Visible emissions are limited to a density of number 1 on the Ringelmann Chart (20 percent opacity) except that a shade as dark as No. 2 of the Ringelmann Chart (40% opacity) shall be permissible for no more than 2 minutes in any hour. [F.A.C. 17-2.600(5)(b)1].

6. Sulfur dioxide emissions are limited to 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:	778
2.	Fuel:	Low Sulfur No. 6 Fuel Oil
3.	BBL/hr burned:	126
4.	Ash Content:	as sampled
5.	Steam Temp.:	950 F
6.	Steam Press:	1450 psig
7.	Steam Flow:	625 MPPH
8.	Air to Fuel Ratio:	Continuously Monitored
9.	Stack Height:	280 Ft.
10.	Boiler Make:	Babcock & Wilcox
11.	Firing Arrangement:	Tangential 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	(X)Sulfur Oxides*
( )Fluorides	( )Nitrogen Oxides
(X)Plume Density	( )Hydrocarbons
	( )Total Reduced Sulfur

*Fuel analysis is acceptable

2. Testing of emissions must be accomplished at approximately the rates as stated in the application. Failure to submit the input rates or operation at conditions which do not reflect actual operating conditions may invalidate the data [Chapter 403.161(1)(c), Florida Statutes].

3. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Chapter 17-4.14, F.A.C.

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

4. Particulate emission limits for this unit is 0.1 lb TSP/MMBTU/hr heat input per F.A.C. 17-4.650(2)(c)2.

5. Visible emissions are limited to a density of number 1 on the Ringelmann Chart (20 percent opacity) except that a shade as dark as No. 2 of the Ringelmann Chart (40% opacity) shall be permissible for no more than 2 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:	778
2.	Fuel:	Low Sulfur No. 6 Fuel Oil
3.	BBL/hr burned:	126
4.	Ash Content:	as sampled
5.	Steam Temp.:	950 F
6.	Steam Press:	1450 psig
7.	Steam Flow:	625 MPPH
8.	Air to Fuel Ratio:	Continuously Monitored
9.	Stack Height:	280 Ft.
10.	Boiler Make:	Babcock & Wilcox
11.	Firing Arrangement:	Tangential 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

William K. Hennessey
District Manager

EXPIRATION DATE: January 25, 1987

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.

Bob Garrett

D.E.R.

JAN 21 1982

SOUTHWEST DISTRICT
TAMPA

TAMPA ELECTRIC
A TECO ENERGY COMPANY

January 18, 1982

Mr. William K. Hennessey
Southwest District Manager
Florida Department of Environmental
Regulation
7601 Highway 301 North
Tampa, Florida 33610

Re: Hookers Point and Gannon Stations
RACT Permits

Dear Mr. Hennessey:

Enclosed please find revised operation and maintenance plans for Hookers Point Station, Boilers 1 through 6, and Gannon Station Units 1 through 6. These plans contain the information required by FAC 17-2.650 in addition to information requested by Mr. Robert R. Garrett's letter of December 7, 1981.

As noted in our December 11, 1981 letter, we feel that our original plans provided the required information. However, in that letter we agreed to waive the 90-Day permit processing time and cooperate with the Department in supplying the additional information.

The revised plans contain most of the additional information requested by Mr. Garrett. The remainder of the information is provided below:

1. Are fuel additions used?

   A fuel additive, magnesium oxide, is added to the No. 6 fuel oil. This additive serves many purposes, but mainly provides better heat distribution within the boiler and helps prevent corrosion.

2. Under what conditions do you hook into other company's load sharing equipment? How long does it take?

   Our system is tied directly into the state system grid. We rely on generation from other companies, if available, when for various reasons,

(emergency outages, severe weather, etc.) we are unable to meet our system load requirements with our own generating equipment. We also purchase power from other utilities when it is economical to do so.

3. When is flyash reinjected into the boiler? Is this a cleaning technique?

   Flyash is reinjected into the boiler when it is produced at a rate greater than it can be removed from the site by the contractor to whom it is sold. Flyash reinjected into the boiler converts to slag which is more easily handled and stored.

4. How many sections of this ESP can be out and still maintain compliance?

   A blanket statement as to the number of precipitator sections which may be out of service and still maintain compliance cannot be made. The precipitator collection efficiency is a function of a number of variables including the ash content of the fuel, the ash chemistry and the unit load. For instance, for a given number of sections out of service, a unit could maintain compliance at one load and not at another.

I trust that the above, along with the enclosures, will provide the information the Department felt necessary to finalize the subject permits.

Should you have any questions concerning this matter, please do not hesitate to call.

Sincerely,

Jerry L. Williams

Jerry L. Williams
Director
Environmental Planning

JLW:dh
Enclosures
cc: Mr. Dan Williams
Mr. Robert R. Garrett

D.E.R.

SEP 17 1981

SOUTHWEST DISTRICT
TAMPA

PAID SEP 17 1981

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

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 6

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.

A029-2483 Aug. 26, 1976 to Aug. 31, 1978

A029-7104 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	855.8	1368.6	1.1 lbs/MMBTU	855.8	855.8	3748	Fig 1
Particulates	77.8	63.5	0.1 lbs/MMBTU	77.8	77.8	341	

*From 1980 Emission Inventories

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	3538	5292	778

*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: 9.4 ft.

Gas Flow Rate: 245,000 ACFM Gas Exit Temperature: 325 °F.

Water Vapor Content: _____ % Velocity: 58.8 FPS

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

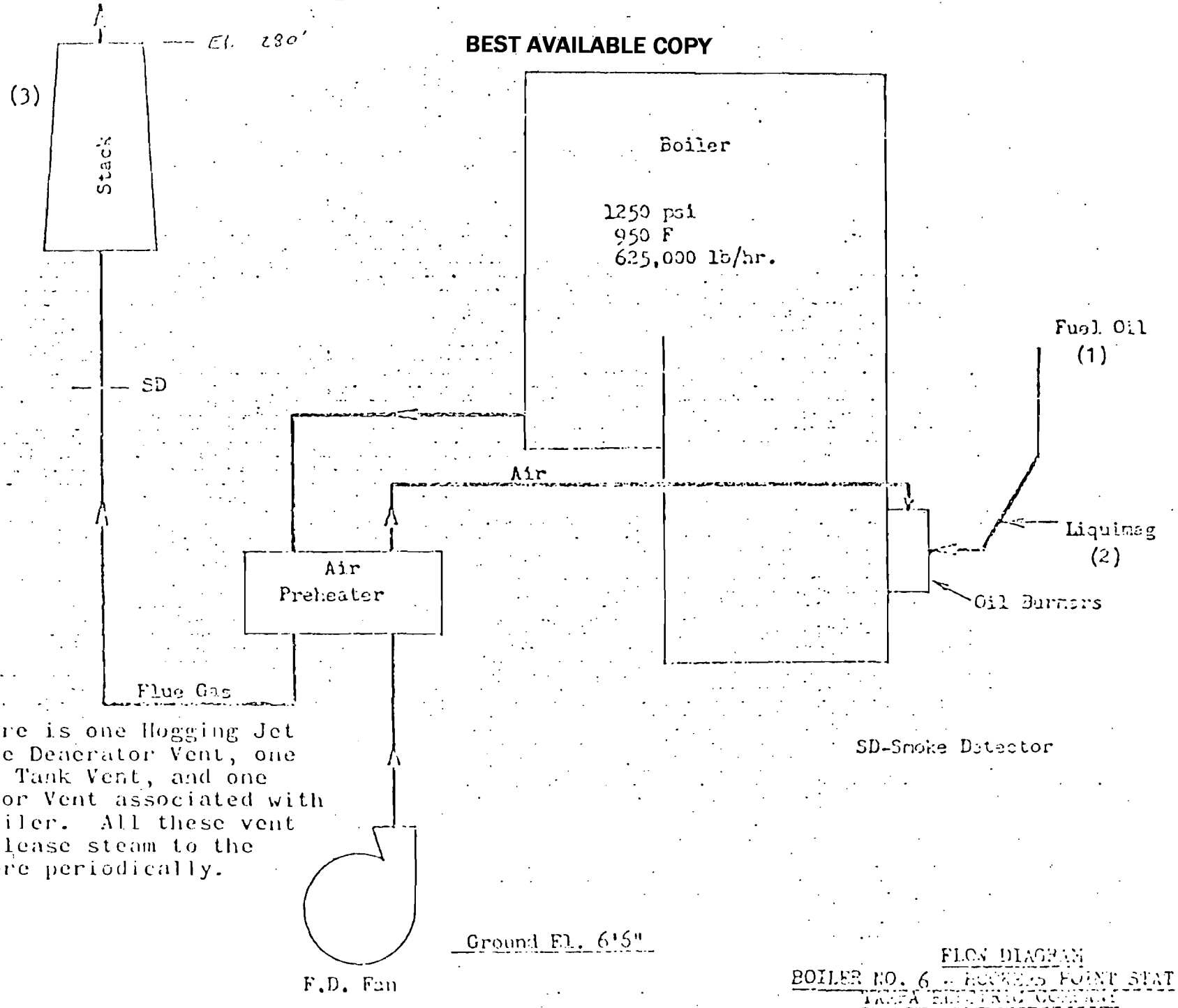
Attach list of emission sources. Emission data required is source name, description on point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

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.



Note: There is one Hogging Jet Vent, one Deaerator Vent, one Blowdown Tank Vent, and one Evaporator Vent associated with No. 6 Boiler. All these vent lines release steam to the atmosphere periodically.

FIGURE 1

FLOW DIAGRAM
BOILER NO. 6 - [illegible] POINT STATION
TAMPA ELECTRIC COMPANY

Dwg. No. PE22663-3 2-26-63

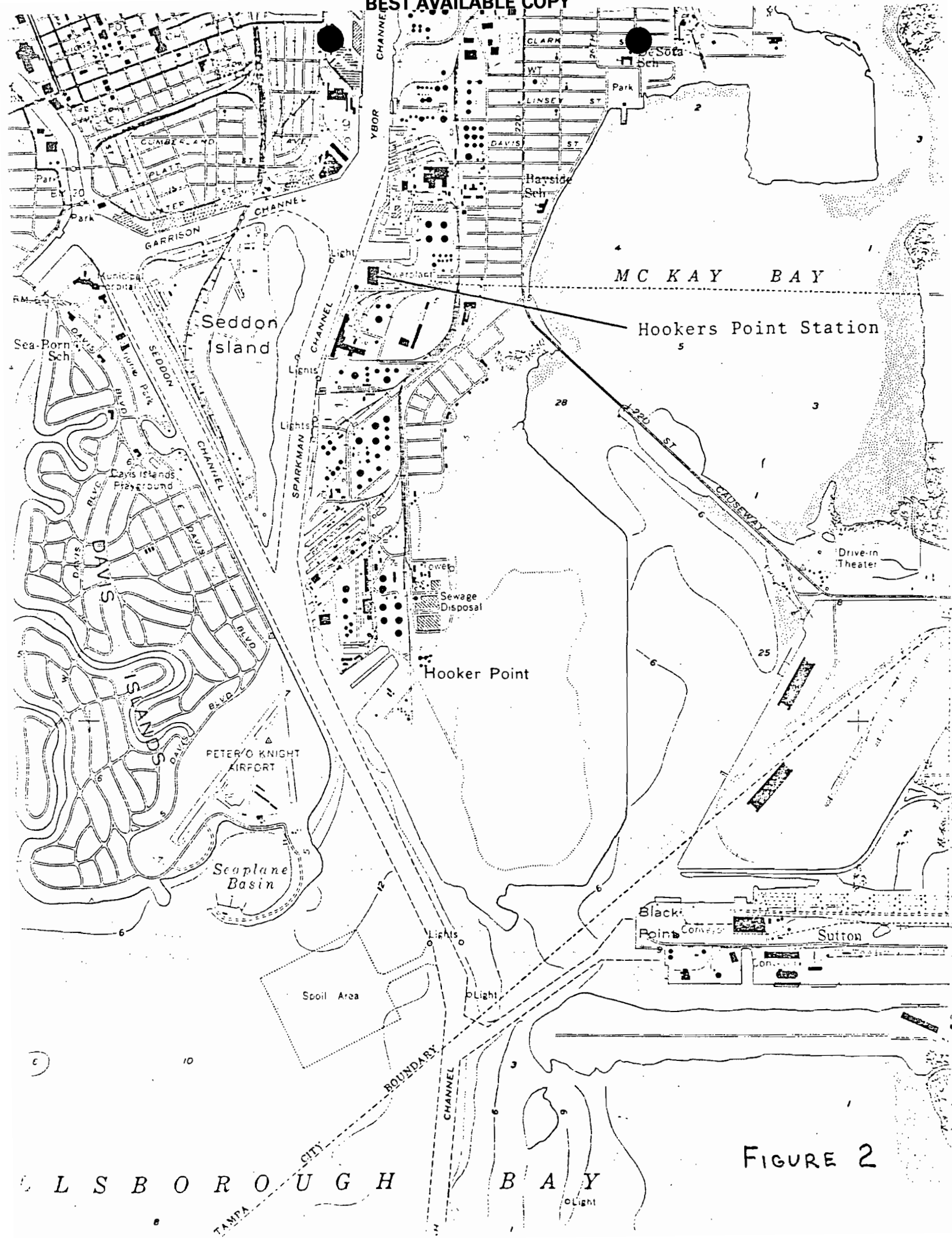
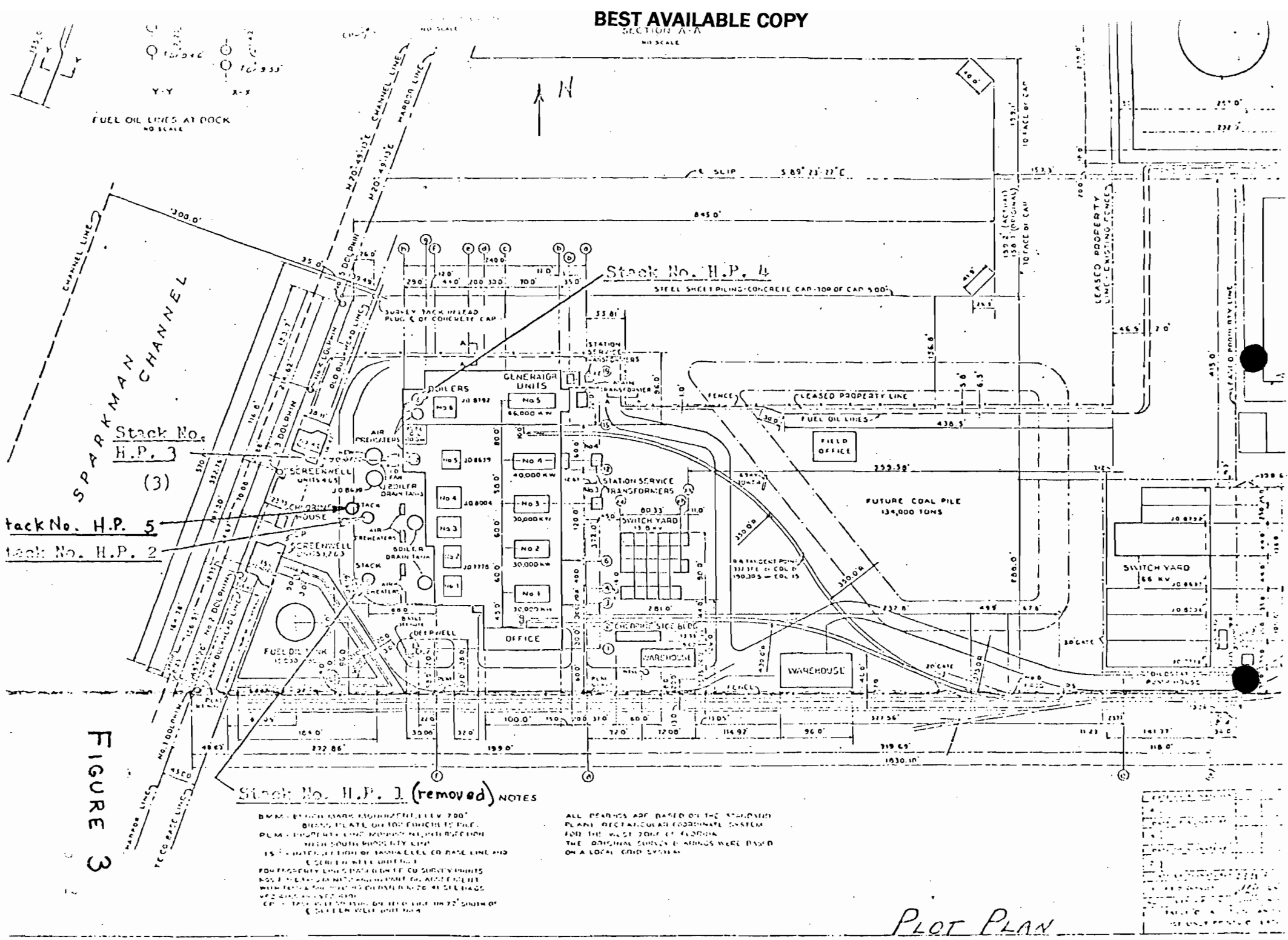


FIGURE 2



NOTES

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

PLM - PROPERTY LINE MONUMENT, PUNCH SECTION WITH SOUTH PROPERTY LINE

IS - INTERSECTION OF TAMPA-TECO BASE LINE AND E SCREEN WELL UNIT No. 1

FOR PROPERTY LINE STATE OF FLA. SURVEY POINTS AND PLEASANT HOMES SUBDIVISION SEE PAGE

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 6

CALCULATIONS

- Maximum/Allowable Emissions

SO_2 $\frac{1.1 \text{ lbs. } SO_2}{\text{MMBTU}} \times \frac{778 \text{ MMBTU}}{\text{HOUR}} = 855.8 \frac{\text{lbs. } SO_2}{\text{HOUR}}$

Particulate $\frac{0.1 \text{ lbs.}}{\text{MMBTU}} \times \frac{778 \text{ MMBTU}}{\text{HOUR}} = 77.8 \frac{\text{lbs. Part.}}{\text{HOUR}}$

- Potential Emissions

SO_2 $\frac{855.8 \text{ lbs. } SO_2}{\text{HOUR}} \times \frac{8760 \text{ Hour}}{\text{YEAR}} \times \frac{1 \text{ Ton}}{2000 \text{ lbs.}} = 3748 \frac{\text{Tons } SO_2}{\text{YEAR}}$

Particulate $\frac{77.8 \text{ lbs.}}{\text{HOUR}} \times \frac{8760 \text{ Hour}}{\text{YEAR}} \times \frac{1 \text{ Ton}}{2000 \text{ lbs.}} = \frac{341 \text{ Tons}}{\text{YEAR}}$

- 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

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

REUBIN O'D. ASKEW
GOVERNOR

JOSEPH W. LANDERS, JR.
SECRETARY

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. AO29-7104 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,

for B. Craig McCarter
P. David Puchaty
District Manager

c: 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.

SERIAL XXXXXXXXXX

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION

HILLSBOROUGH COUNTY

OPERATION PERMIT

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

PERMIT NO. A029-7104 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. 6 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 Ben A. Williams
DISTRICT ENGINEER

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

J W Landers Jr
JOSEPH W. LANDERS, JR.
SECRETARY

for B. Craig McArthur
DISTRICT MANAGER
P. David Puchaty

JG Replaces A029-2483 101800052003806

DER Form PERM 11-3 (Mar. 76)

State of Florida
Department of Environmental Regulation

OPERATION PERMIT CONDITIONS
FOR AIR POLLUTION SOURCES

Permit No.: AO29-7104 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.

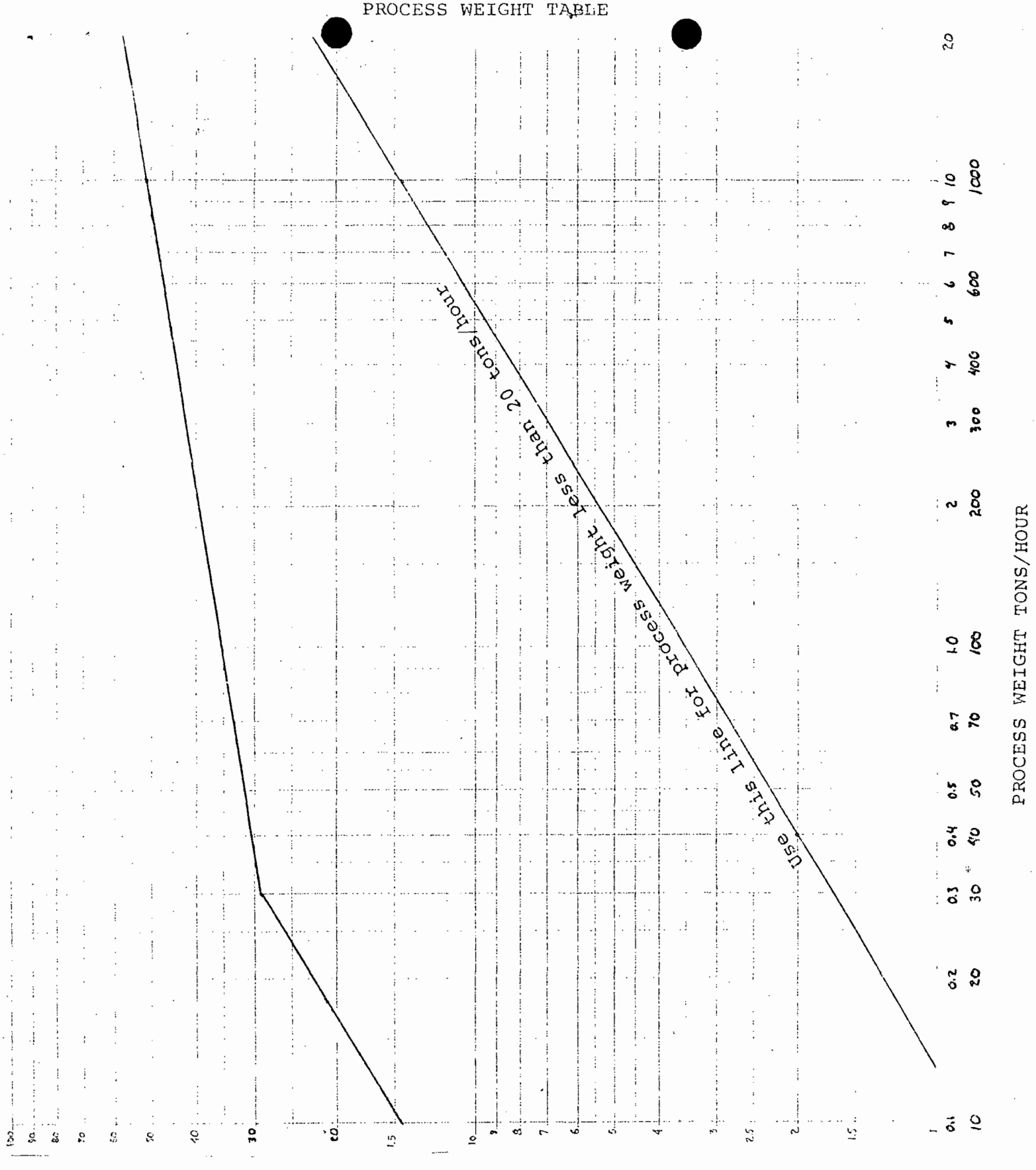
(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

(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#0000000012434 CODE# DER PROCESSOR:BROWN DER OFFICE:TPA
FILE NAME:ALEX KAISER DATE FIRST REC: 08/14/78 APPLICATION TYPE:AO
APPL NAME:TECO - 7104 APPL PHONE:(8431879-4111 PROJECT COUNTY:29
ADDR:P.O. BOX 111 CITY:TAMPA ST:FLZIP:33601
AGNT NAME:BERNARD D. KITCHING AGNT PHONE:(8431879-4111
ADDR:P.O. BOX 111 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:A029-7104 (HOOKERS POINT)

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 DAW

FROM: William H. Brown, II WHB

DATE: September 15, 1978

SUBJECT: TECO - Hookers Point #6. A029-7104

This unit is a 778 MMBTU/hr. steam boiler using #6 fuel oil, this fuel oil has 1% sulfur. The emission rate from this unit is 840.7 lb/hr. SO_2, 44.7 lb/hr. TSP, allowable is 89.4 lb/hr. ~~SO_2~~ TSP, 983.8 lb/hr. ~~TSP~~ SO_2.

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

D.E.R.

AUG 14 1978

SOUTHWEST DISTRICT
TAMPA

0638
06

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

8-14-78 RC
A029-7104

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 6 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 an 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. Kitching
Name: Bernard D. Kitching (Please Type)
Company Name: Tampa Electric Company
Florida Registration Number: 6503
(Affix Seal)

Mailing Address: P. O. Box 111
Tampa, Fla. 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.

AO29-2483 dated August 26, 1976, expiration date: August 31, 1978

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 ...XXNo

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 Containinant 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 lbs./hr.	Actual** Discharge T/yr.	Discharge Criteria Rate*	Allowable Discharge Lbs./hr.	Relate to Flow Diagram
Sulfur dioxide	840.7	686.5	1.1 lbs/MMBTU	983.8	(3)
Particulate	44.7	36.5	0.1 lbs/MMBTU	89.4	(3)

NOTE: (1) Calculated from source test data and fuel analysis data of March 8, 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 (XXXXX) lbs/MMBTU	Daily Emission (lb./day)	Yearly Emission (T/yr.)	Basis for Emission Estimate (Test Data, Material Balance)
Sulfur dioxide	0.94	See previous page		Test data from March 8, 1978 stack test
Particulate	0.05			Test data from March 8, 1978 stack test

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 * gal/hour		Maximum Heat Input MBTU/hr.
	Avg./hr. 1	Max./hr.	
No. 6 oil (1.0% S annual average)	3986	5292	778
NOTE: (1) data from 1977 HCEPC Emission Inventory			

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

Fuel Analysis: from March 8, 1978 stack test.

Percent Sulfur .89 Percent Ash N.A.

Density N.A. lb./gal.

Heat Capacity 18657 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). from 1977 HCEPC Emission Inventory

Stack Height 280 ft, Stack Diameter 9.4 ft.

Gas Flow Rate 245,000 max. 188,592 avg. ACFM, Gas Exit Temperature 325 °F

J. Required Supplements:

1. Total process input rate and product weight – show deviation. Maximum heat input to boiler is 778 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 6 OPERATING PERMIT

REAPPLICATION

ACTUAL DISCHARGE

SO_2 0.94 lbs/MMBTU X 894.4 $\frac{\text{MMBTU}}{\text{Hr.}}$ = 840.7 $\frac{\text{lbs/SO}_2}{\text{Hr.}}$

840.7 $\frac{\text{lbs}}{\text{Hr.}}$ X 1 ton/2000 lbs. X 1633 hrs/year = 686.5 $\frac{\text{tons SO}_2}{\text{Year}}$

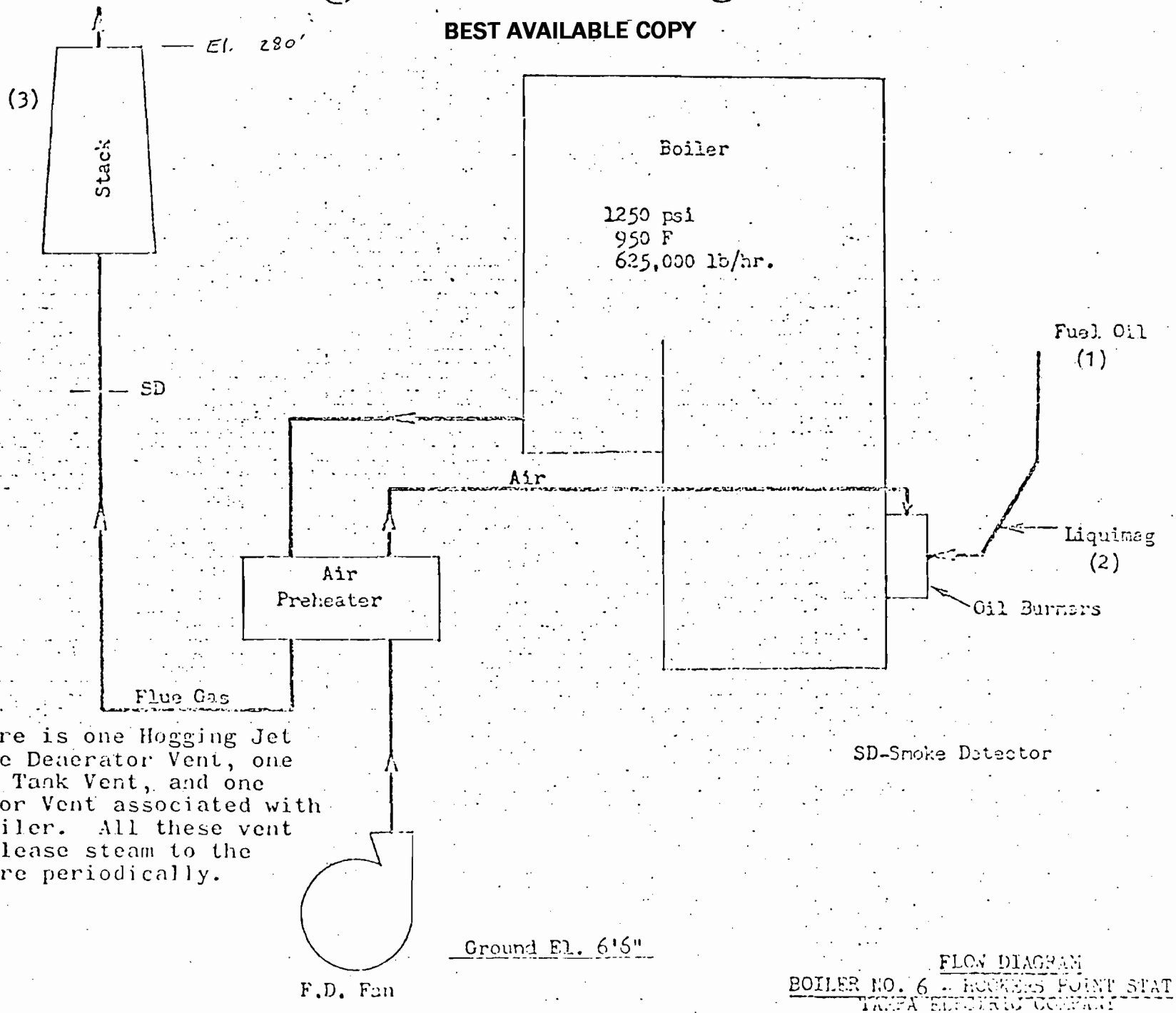
Part. 0.05 lbs/MMBTU X 894.4 $\frac{\text{MMBTU}}{\text{Hour}}$ = 44.7 $\frac{\text{lbs/part.}}{\text{hour}}$

44.7 X 1 ton/2000 lbs. X 1633 hrs/year = 36.5 $\frac{\text{tons part.}}{\text{year}}$

ALLOWABLE DISCHARGE

SO_2 1.1 lbs/MMBTU X 894.4 $\frac{\text{MMBTU}}{\text{Hr.}}$ = 983.8 $\frac{\text{lbs SO}_2}{\text{Hr.}}$

Part. 0.1 lbs/MMBTU X 894.4 $\frac{\text{MMBTU}}{\text{Hr.}}$ = 89.4 $\frac{\text{lbs part.}}{\text{Hour}}$

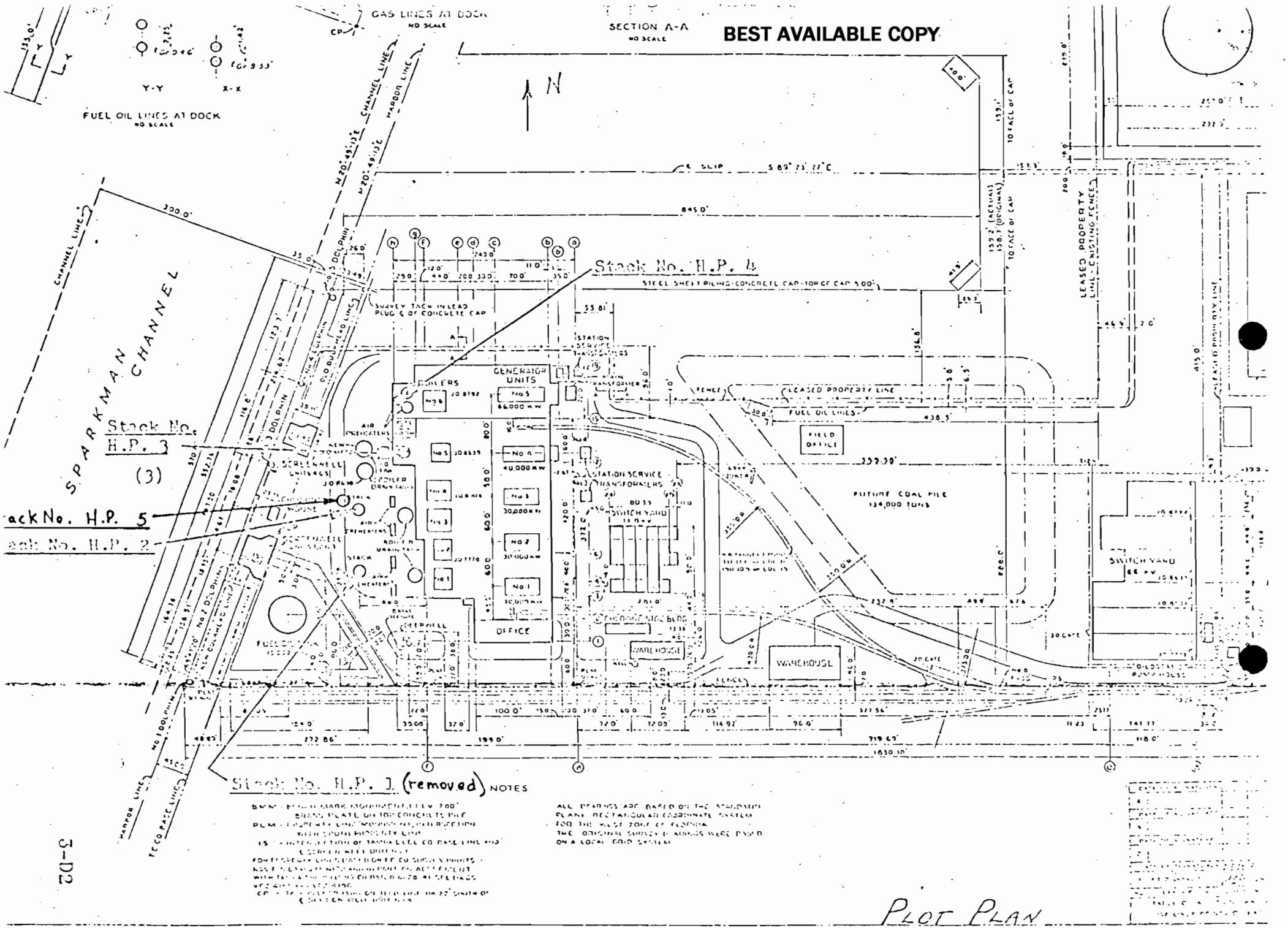


Note: There is one Hogging Jet Vent, one Deaerator Vent, one Blowdown Tank Vent, and one Evaporator Vent associated with No. 6 Boiler. All these vent lines release steam to the atmosphere periodically.

FLOW DIAGRAM
BOILER NO. 6 - ROCKHILL POINT STATION
TAMPA ELECTRIC COMPANY

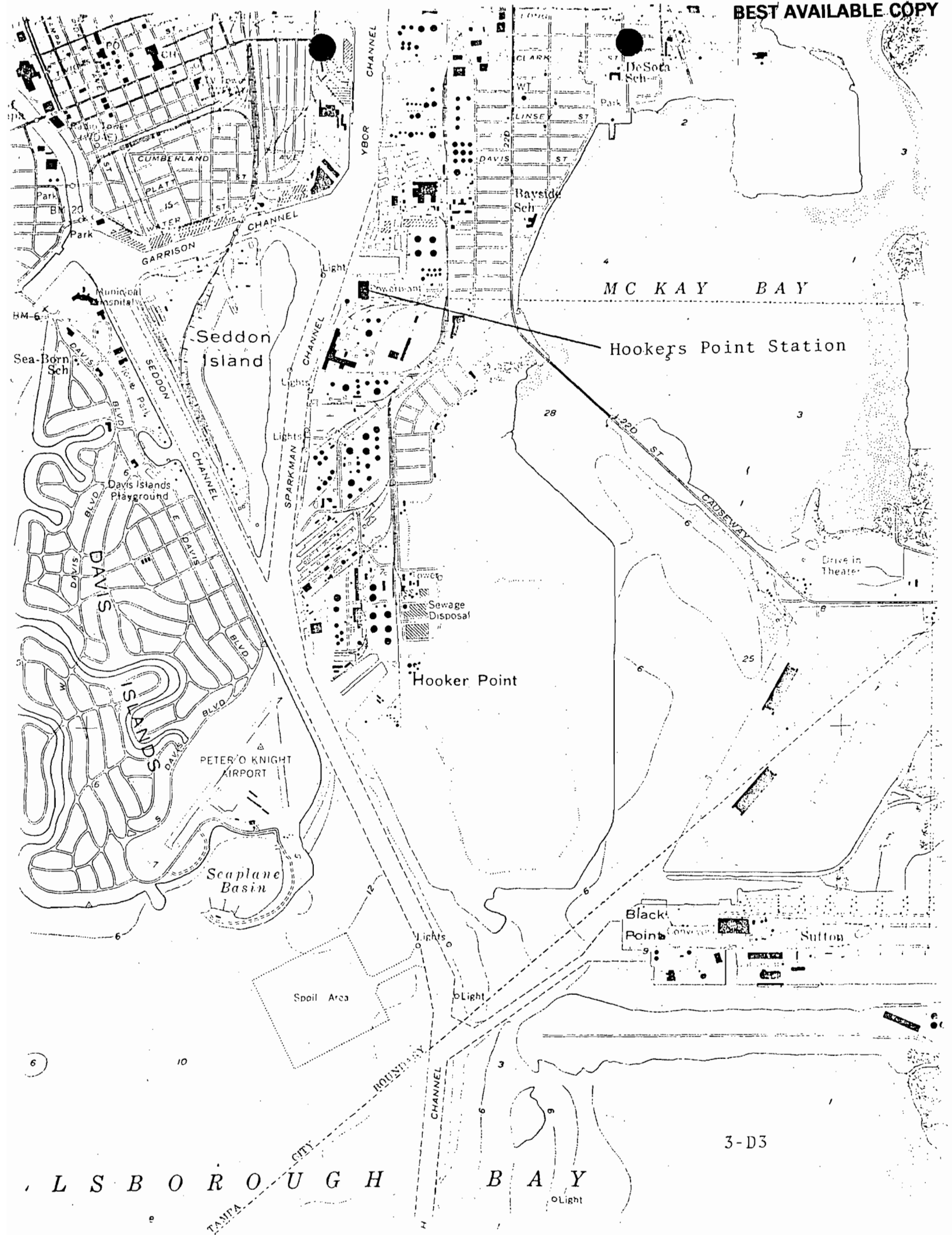
Dwg. No. PD22663-3 2-26-63

3-D1



PLOT PLAN

3-D2



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT
9721 EXECUTIVE CENTER DRIVE, NORTH, SUITE 200
~~P.O. BOX 20350~~
ST. PETERSBURG, FLORIDA ~~33742~~ 33702

REUBIN O'D. ASKEW
GOVERNOR

JOSEPH W. LANDERS, JR.
SECRETARY

TAMPA, ELECTRIC COMPANY
HILLSBOROUGH COUNTY - AP
AUGUST 26, 1976

MR. ALEX KAISER, DIRECTOR OF POWER PLANT ENGINEERING
AND ENVIRONMENTAL PLANNING
TAMPA ELECTRIC COMPANY
P. O. BOX 111
TAMPA, FLORIDA 33601

Dear Mr. Kaiser:

Pursuant to your recent application, please find enclosed a permit (No. A029-2483) dated 8/26/76 to ~~construct~~/operate the subject pollution source.

This permit will expire on 8/31/78, and will be subject to the conditions, requirements and restrictions checked or otherwise indicated in the attached sheet "~~Construction~~/Operation Permit Conditions".

This permit is issued under the authority of Florida Statute 403.061(16). The time limits imposed herein are a condition to this permit and are enforceable under Florida Statute 403.161. You are placed on Notice that the Department will review this permit before the scheduled date of expiry and will seek court action for violation of the conditions and requirements of this permit.

You have ten days from the date of receipt hereof within which to seek a review of the conditions and requirements contained in this permit. Failure to file a written request to review or modify the conditions or requirements contained in this permit shall be deemed a waiver of any objections thereto.

Your continued cooperation in this matter is appreciated and in future communication please refer to your permit number.

Sincerely,

B. B. Vest, Jr.
District Manager
Southwest District

cc: C.S.
Central Files
HCEPC
B. D. Kitching

SERIAL Nº 06081

101800052003806

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION

OPERATION PERMIT

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

PERMIT NO. A029-2483 DATE OF ISSUE August 26, 1976

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 OF POWER PLANT ENGINEERING AND ENVIRONMENTAL PLANNING

FOR THE OPERATION OF THE FOLLOWING:
HOOKER'S POINT STATION NO. 6 STEAM GENERATOR USING LOW SULFUR NO. 6
FUEL OIL SUBJECT TO ATTACHED CONDITIONS OF APPROVAL NOS: 1,2,3,4,5,6,7 & 8.

LOCATED AT FOOT OF HEMLOCK AVENUE, HOOKER'S POINT, TAMPA
UTM: 17-358.00 E 3091

IN ACCORDANCE WITH THE APPLICATION DATED 8/1/75

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 8/31/78 OR UNLESS REVOKED OR SURRENDERED AND SHALL BE SUBJECT TO ALL LAWS OF THE STATE AND THE RULES AND REGULATIONS OF THE DEPARTMENT.

E. G. Dupree
DISTRICT ENGINEER

J. W. Landers Jr.
JOSEPH W. LANDERS, JR.
SECRETARY

Roger P. Stewart
ROGER P. STEWART, DIRECTOR
HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION

B. B. Unr
DISTRICT MANAGER

1800052003806

DER Form PERM 11-3 (Mar. 76)

Permit No.: A029-2483 **BEST AVAILABLE COPY** Date: 8/26/76

(X) 1. Fugitive dusts, odors and other pollutants from all sources shall be effectively controlled or eliminated by suitable means. (Chapter 17-2.04 (3)(4)(5))

(X) 2. The pollution control equipment shall be maintained and operated in such a manner that all emissions will be in compliance with applicable rules and regulations of the DER. A log of maintenance activities shall be kept and available for DER review. (Chapter 17-2.03 (7))

(X) 3. Report any problems encountered in the operation of the source that may result in discharge of pollutants in amounts higher than permitted herein. Cease operation forthwith unless permission has been obtained from the regional office of the DER to operate the source for an interim period. (Chapter 17-4.13)

(X) 4. This permit is issued on the basis of the data submitted in the application and the existing requirements of this agency as set forth in Chapter 17-2 (revised January 18, 1972) Florida Administrative Code. The owner shall obtain written permission from the DER before making changes in the operation of the source (i.e. higher production rate, different raw materials and fuels, etc.) that may increase the quantity of pollutants or change their composition. (Chapter 17-2.01)

(X) 5. This permit is not transferable. Upon the sale or legal transfer of the source covered by this permit, the new owner must apply by letter for a transfer of this permit within thirty days. (Chapter 17-4.12)

(X) 6. Test the emissions for the following pollutant(s) at intervals of TWELVE MONTHS from the date of this permit and submit two copies of test results to the District engineer of this agency within fifteen days of such testing. (Chapter 17-2.07 (1))

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

* FUEL ANALYSIS MAY BE SUBMITTED IN LIEU OF SO_2 STACK TEST REPORT.

(X) 7. Provide such sampling and testing facilities as may be necessary for the proper determination of the nature and quantity of air pollutants emitted from this source. (Chapter 17-2.07)

(X) 8. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceeding calendar year containing the following information:

a) Annual amount of materials and/or fuel utilized.
b) Annual emissions.
c) Any changes in the information contained in the permit application.

AUG 9 1976

A029-2483
0038
86

Tampa Electric Company
Hookers Point Station
No. 6 Boiler

STATE OF FLORIDA
DEPARTMENT OF POLLUTION CONTROL

DER

RECEIVED
AUG 16 1976
SOUTH WEST DISTRICT
ST. PETERSBURG

RECEIVED
AUG 5 1976

H.C.E.P.C. PAID

H. C. E. P. C.

APPLICATION TO OPERATE/CONSTRUCT POLLUTION SOURCES

SECTION I – GENERAL INFORMATION FOR ALL POLLUTION SOURCES

I TO BE FILLED IN BY APPLICANT

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

Source Name: Hookers Point Station No. 6 Boiler County: Hillsborough

Source Location: Street: Foot of Hemlock Avenue City: Tampa
(Water Source Only) Lat: ° ' " Long: ° ' "
(Air Source Only) UTM: East 358,000m North 3,091,000m

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

II TO BE FILLED IN BY REGION (*BY BUREAU OF PERMITTING)

Control No: Region County Type *Project

Type Permit	Date Rec'd	*Permit No.	*Issue Date	*Compl. Date	*Exp. Date

Source Description:
Control Equipment:

Water Permits

Receiving Body Code: Surface Water Code:
Station No.: Influent: Effluent:

Effluent:	Average	Design	% Reduction
Flow rate, MGD			
BOD, lbs/day			
Susp. Sol., lbs/day			
Other:			

Air Permits

Operating Time: [ ] Continuous [ ] Intermittent
Fuel: Type M-BTU/hr. In Put
Incinerator: Capacity, tons/day Type Waste
Mfg. & Model

Pollutant Emissions, lbs/day	Actual	Design	Allowable
Particulate			
Sulfur Oxides			
Other:			

Implementation: Estimated Appl. Filing Date
Estimated Start of Const. Estimated Compliance Date

DESCRIPTION OF PROPOSED PROJECT

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

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

Federally or State Financed Projects only:

Planning Complete _____

Financing Program Complete _____

Indicate other local, state and/or federal agency approvals and dates _____

All projects:

Start of Construction _____

Completion of Construction _____

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

Oil conversion $3,079,000 latest revised estimate, Hookers Point Units 1-6

Stack Extension $2,278,000 latest revised estimate, Hookers Point Units 1-6

D. Indicate any previous DPC permits, issuance dates, and expiration dates.

A029-2093 dated May 25, 1973, expiration date: June 30, 1974

AIR POLLUTION SOURCES & CONTROL DEVICES

A. Identification of Air Contaminants

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

2) [XX] Sulfur Compounds
   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 Tons/day, lbs./day, etc.	Approximate Contaminant Content		Relate to Flow Diagram
		Type	% Wt.	
NONE				

C. Process Weight:

1) Total Process Weight Rate N/A lbs./hr. [See Sec. 17-2.04(2)]
2) Product ~~Weight~~ electricity ~~Rate~~ expressed as 36.8 MWH/hr.
3) Normal Operating Time 0-24 hr/day; 7 days/wk, if seasonal describe: N/A

D. Airborne Contaminants Discharged:

Name of Contaminant	Actual Discharge	Discharge Criteria*	Allowable Discharge*	Relate Location to Flow Diagram
Sulfur dioxide	1.1	lbs/MM BTU	1.1	(3)
Particulates	0.1	lbs/MM BTU	0.1	(3)

* Refer to Chapter 17-2 Florida Administrative Code
(Discharge Criteria: Process Weight Rate, #/ton P_2O_5, #/M BTU/hr etc.)

H.P #6

E. Control Devices:

Name	Eff.	Conditions of Operation, Particle Size Range, etc.	Relate to Flow Diagram
NONE			

F. Fuels:

Type (Be specific)	~~Daily~~ Consumption	Heat Input BTU/hr.	Relate to Flow Diagram
No.6 fuel oil (1% S)	3153 $\frac{gal.}{hr.}$ (avg.)	46.3×10^7	(1)
	5292 $\frac{gal.}{hr.}$ (max.)	77.8×10^7	(1)

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

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

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

None

STACK PARAMETERS:

Height: 280 ft.

Diameter: 9.4 ft.

Temperature: 325°F @ 100% load

Flow: 245,500 ACFM @ 100% load

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 an Operation of Air Pollution Source permit 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 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

Alex Kaiser, Director of Power Plant Engineering & Environmental Planning
Name and Title (Please Type)

Date: August 1, 1975 Telephone No.: 813/876-4111

* Attach a letter of authorization

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 control and discharge of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution source(s) with appropriate control facilities, when properly maintained and operated, will comply 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 installation covered in this application.

Signature

Name: B. D. Kitching
(please type)

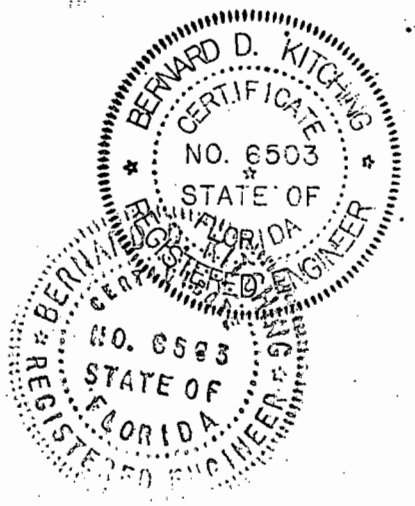
Mailing Address: Tampa Electric Company
P.O. Box 111
Tampa, Florida 33601

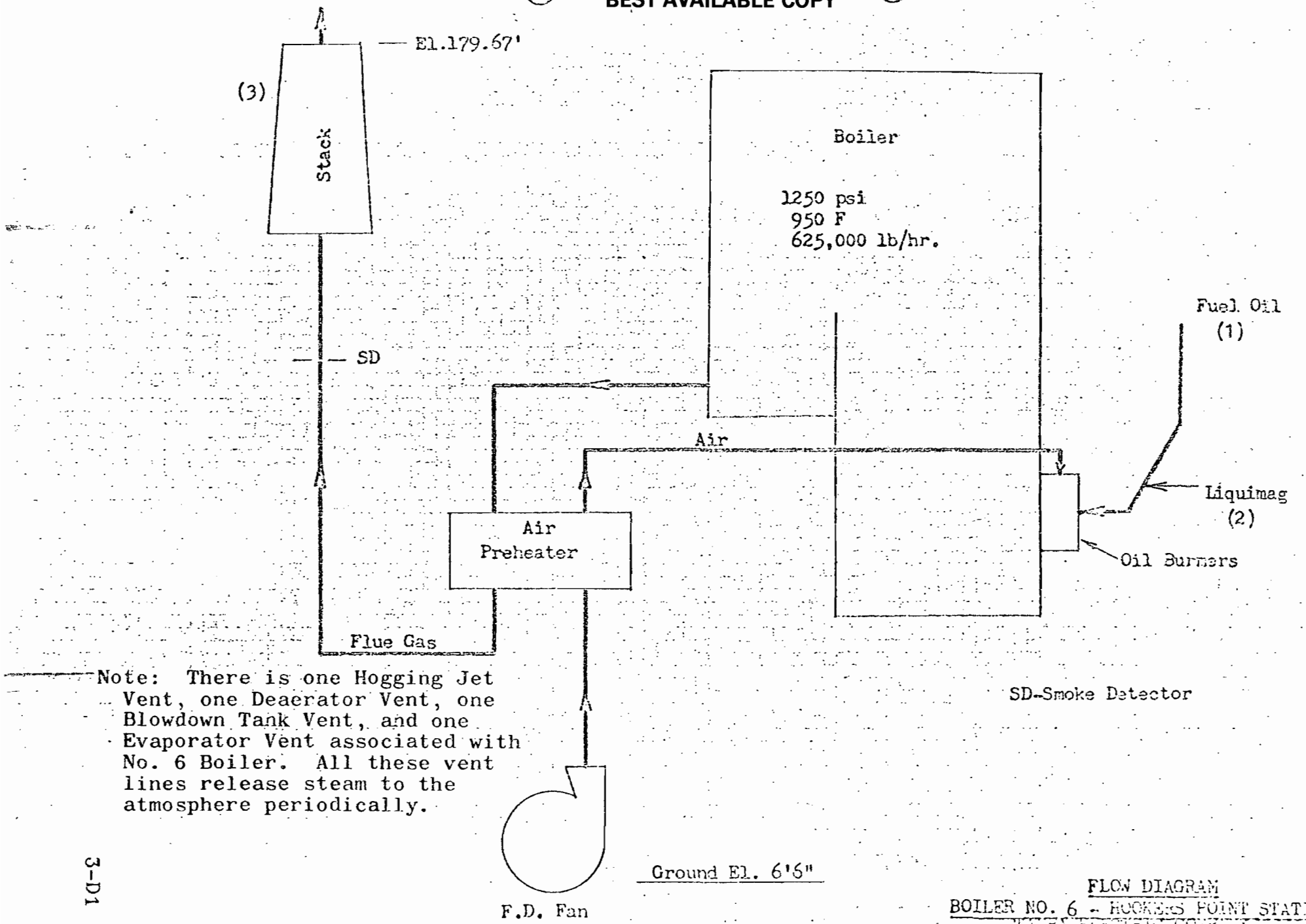
Telephone No.: 813/876-4111

Florida Registration Number 6503

Date: 8-26-57

(Please affix seal)



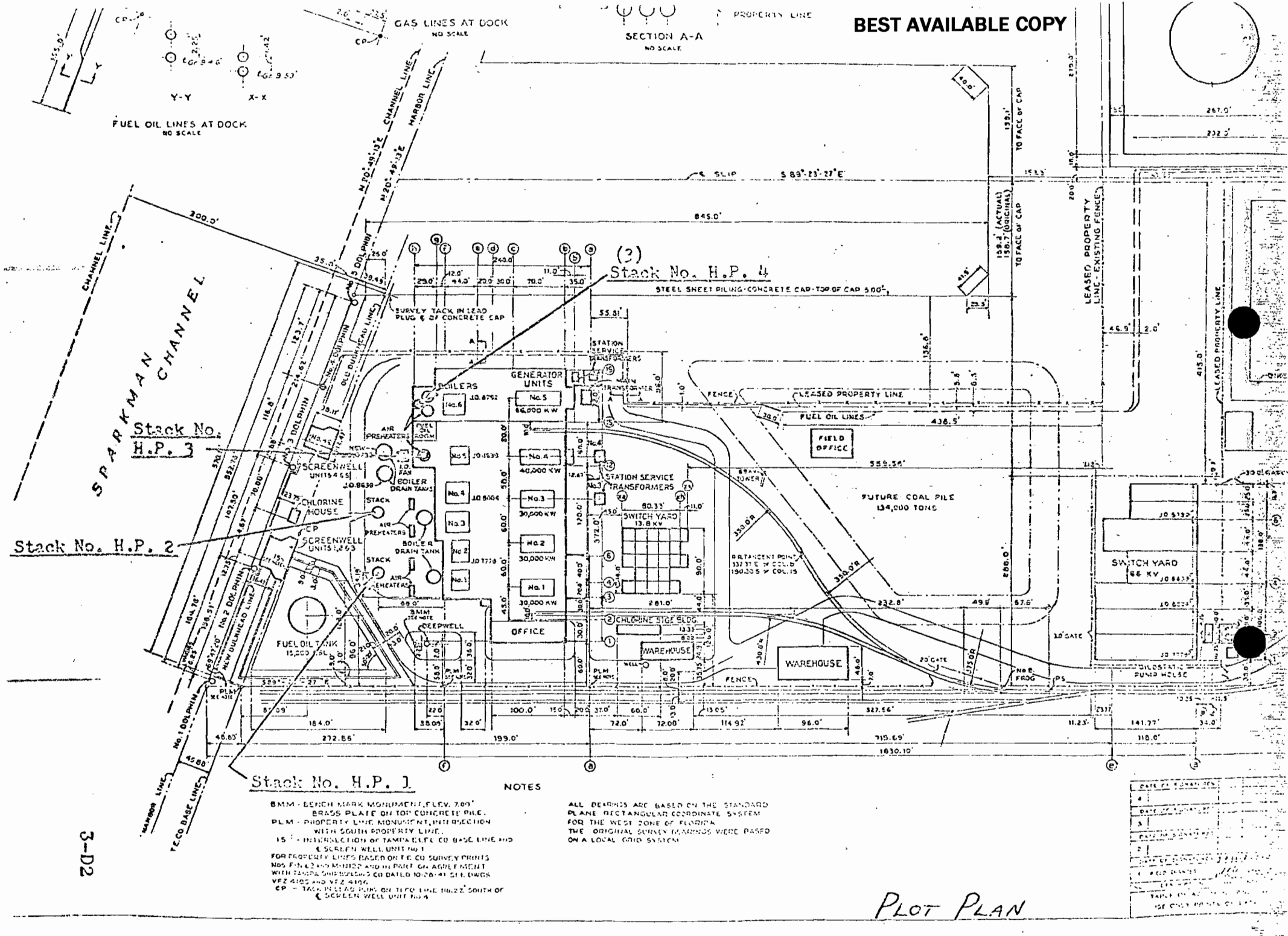


Note: There is one Hogging Jet Vent, one Deaerator Vent, one Blowdown Tank Vent, and one Evaporator Vent associated with No. 6 Boiler. All these vent lines release steam to the atmosphere periodically.

3-D1

FLOW DIAGRAM
BOILER NO. 6 - HOOKERS POINT STATION
TAMPA ELECTRIC COMPANY

Dwg. No. PD22663-3 2-26-63



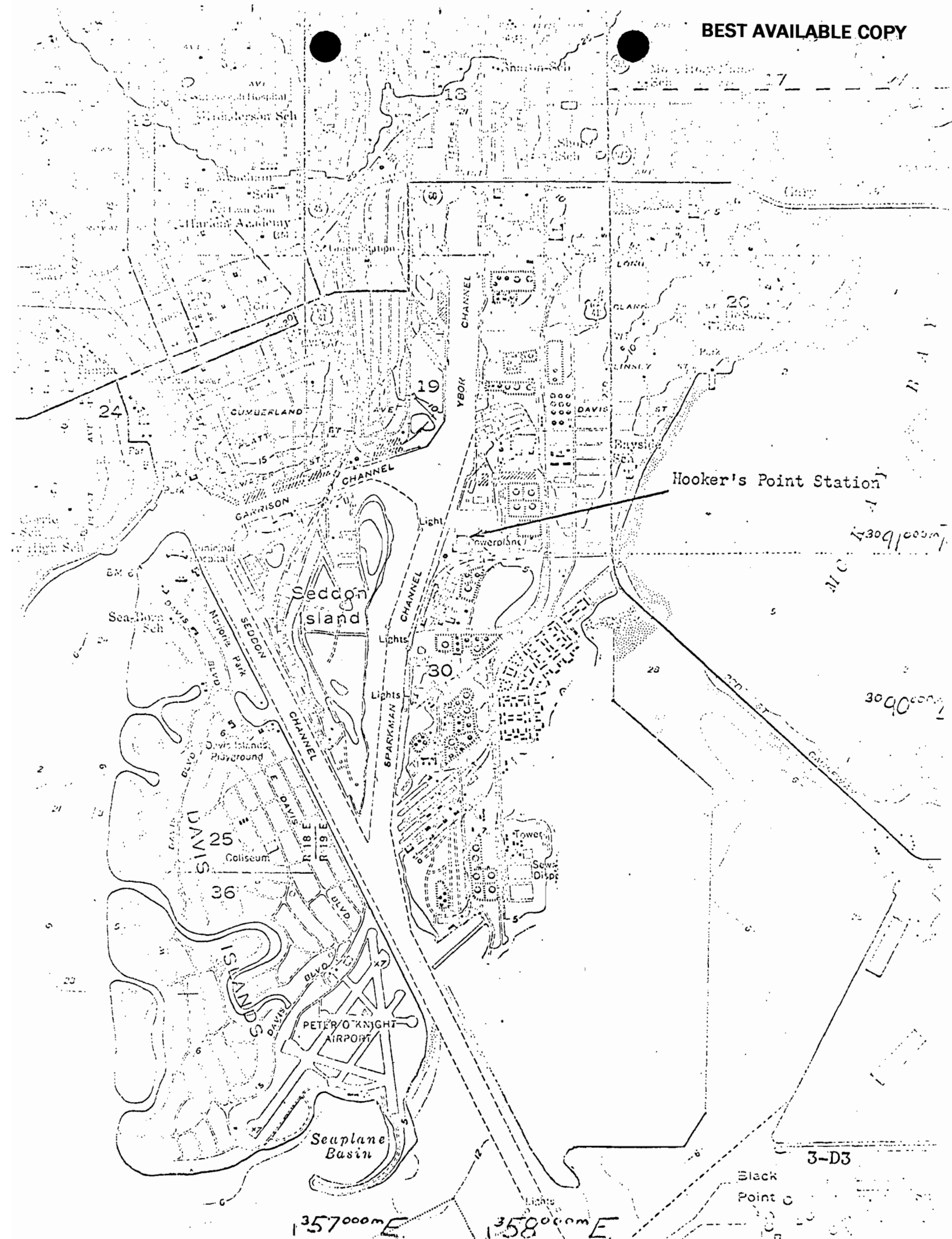
NOTES

8MM - BENCH MARK MONUMENT, ELEV. 7.00' BRASS PLATE ON TOP CONCRETE PILE.
PLM - PROPERTY LINE MONUMENT, INTERSECTION WITH SOUTH PROPERTY LINE.
15 - 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-1 & 2 AND M-1102 AND IN PART ON AGREEMENT WITH TAMPA SHIPBUILDING CO DATED 10-20-41 SEE DWGS VEZ 4185 AND VEZ 4186
CP - TACK PENCAG PINS ON TEC CO LINE 116.22' 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.

3-D2

PLOT PLAN



STATE OF FLORIDA

DEPARTMENT OF STATE

I, BRUCE A. SMATHERS, Secretary of State of the State of Florida, do hereby certify from the records of this office that TAMPA ELECTRIC COMPANY is a corporation duly organized and existing under the laws of the State of Florida.

I further certify that said corporation has paid all fees and taxes due this office to date, has otherwise fully complied with the corporation laws administered by this office, and that its Charter is in full force and effect.

GIVEN under my hand and the Great Seal of the State of Florida, at Tallahassee, the Capital, this the 3rd day of July, 19 75.

Bruce A. Smathers
SECRETARY OF STATE

Corp-105C
1-27-75

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 0 AP

Industry Type (SIC code) [ ]

Location UTM or East U [ ] North [ ]

Latitude deg L [ ] min [ ] sec [ ] Longitude deg [ ] min [ ] sec [ ]

Effluent description Boiler # 6 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 [11 12]

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

Average total flow rate SCFM 103,000 [21 30]

Total particulate, lb/day 470 [31 40] sulfur oxides, lb/day 25,300 [41 50]

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

other pollutants, lb/day [71 90]

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]

29-974

Unit #6

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. 6 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:

B. D. Kitching
Name

TAMPA ELECTRIC COMPANY
Firm

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

Signature

6503
Florida Registration Number

For Department's Use Only Permit No. #6 Date:

The undersigned owner or authorized representative* of TAMPA EIECTRIC 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

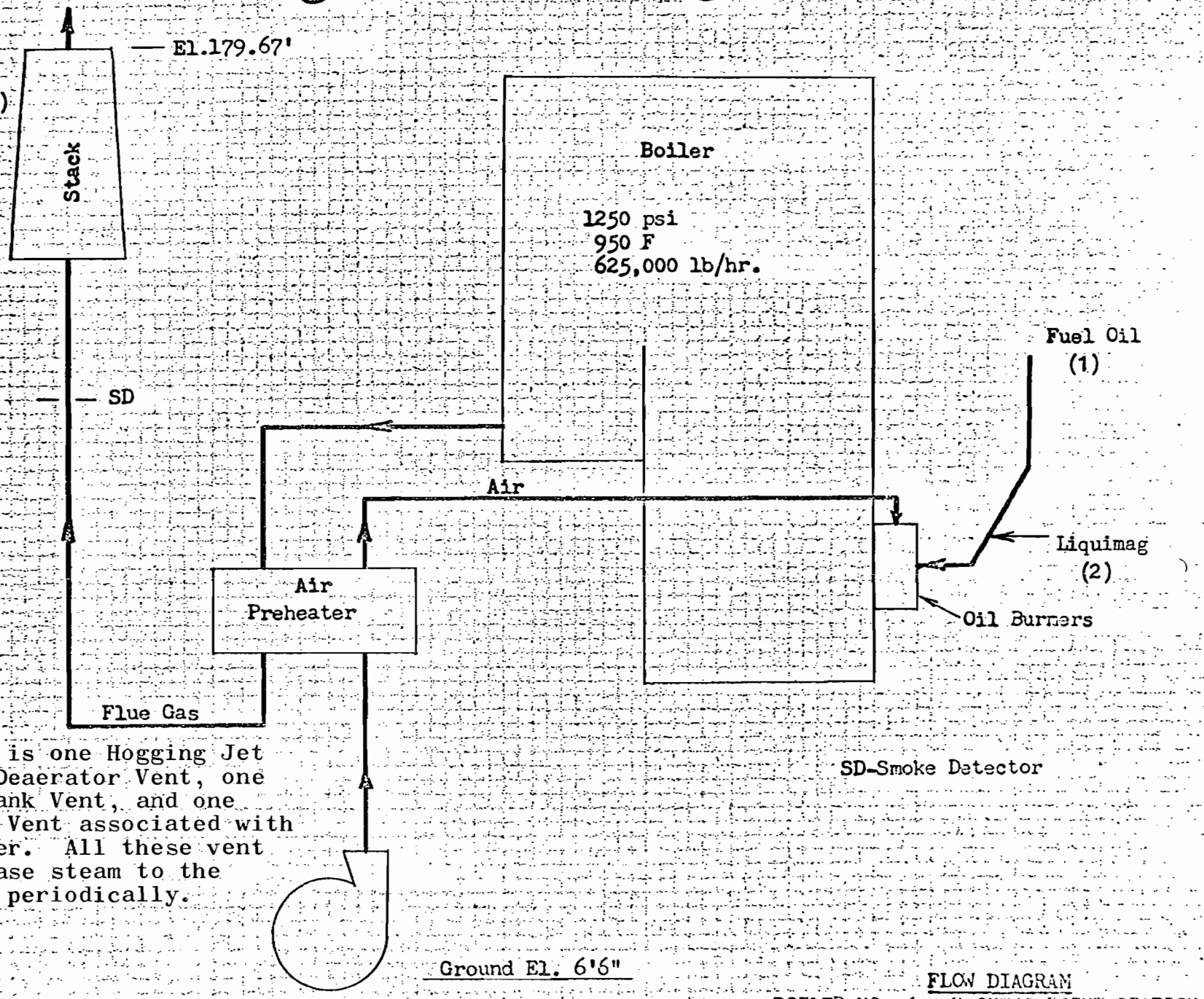
4. Submit an 8½" x 11' plot plan showing the exact location of the establishment and points of discharge in relation to the surrounding area, residences and other permanent structures and roadways.

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				

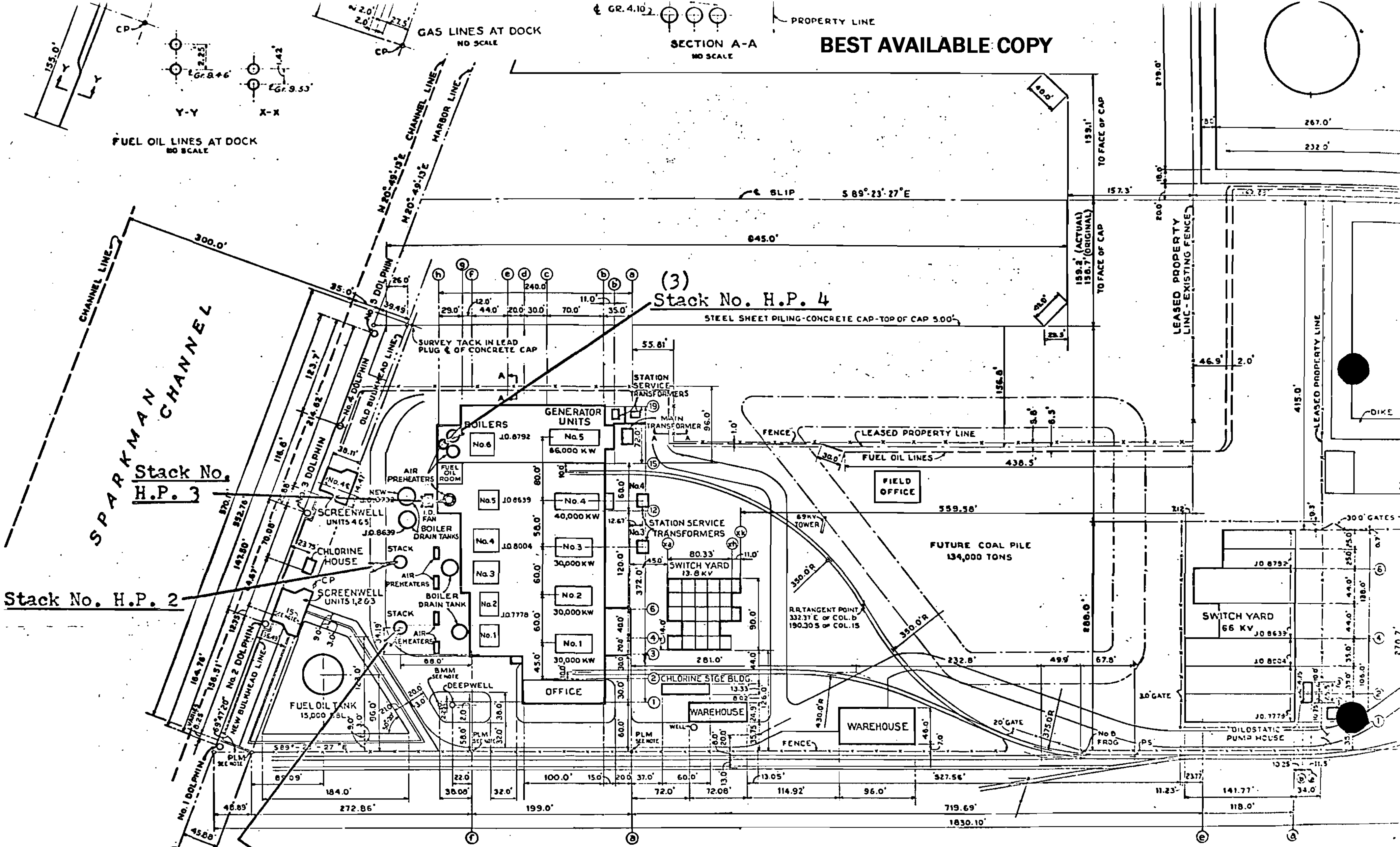


Note: There is one Hogging Jet Vent, one Deaerator Vent, one Blowdown Tank Vent, and one Evaporator Vent associated with No. 6 Boiler. All these vent lines release steam to the atmosphere periodically.

3-D1

FLOW DIAGRAM
BOILER NO. 6 - HOOKERS POINT STATION
TAMPA ELECTRIC COMPANY

Dwg. No. PD22663-3 2-26-63


GAS LINES AT DOCK
NO SCALE
FUEL OIL LINES AT DOCK
NO SCALE
Y-Y
X-X
SECTION A-A
NO SCALE
PROPERTY LINE
CHANNEL LINE
HARBOR LINE
SPARKMAN CHANNEL
Stack No. H.P. 4
(3)
Stack No. H.P. 3
Stack No. H.P. 2
Stack No. H.P. 1
STEEL SHEET PILING-CONCRETE CAP-TOP OF CAP 5.00'
SURVEY TACK IN LEAD PLUG ℄ OF CONCRETE CAP
℄ SLIP
S 89°-23'-27" E
645.0'
300.0'
BOILERS
GENERATOR UNITS
No. 5 86,000 KW
No. 4 40,000 KW
No. 3 30,000 KW
No. 2 30,000 KW
No. 1 30,000 KW
AIR PREHEATERS
FUEL OIL ROOM
I.D. FAN
BOILER DRAIN TANKS
STACK
SCREENWELL UNITS 4 & 5
SCREENWELL UNITS 1, 2 & 3
CHLORINE HOUSE
FUEL OIL TANK 15,000 BBL.
DEEPWELL
OFFICE
STATION SERVICE TRANSFORMERS
MAIN TRANSFORMER
SWITCH YARD 13.8 KV
CHLORINE STGE BLDG.
WAREHOUSE
FIELD OFFICE
FUTURE COAL PILE 134,000 TONS
LEASED PROPERTY LINE
FUEL OIL LINES
FENCE
69KV TOWER
R.R. TANGENT POINT
SWITCH YARD 66 KV
DILOSTATIC PUMP HOUSE
LEASED PROPERTY LINE - EXISTING FENCE
TO FACE OF CAP
DIKE
300' GATES
20' GATE
30' GATE
No. 8 FROG
NEW BULKHEAD LINE
OLD BULKHEAD LINE
No. 1 DOLPHIN
No. 2 DOLPHIN
No. 3 DOLPHIN
No. 4 DOLPHIN
No. 5 DOLPHIN
T.E.CO. BASE LINE
559.58'
719.69'
1830.10'
272.86'
199.0'

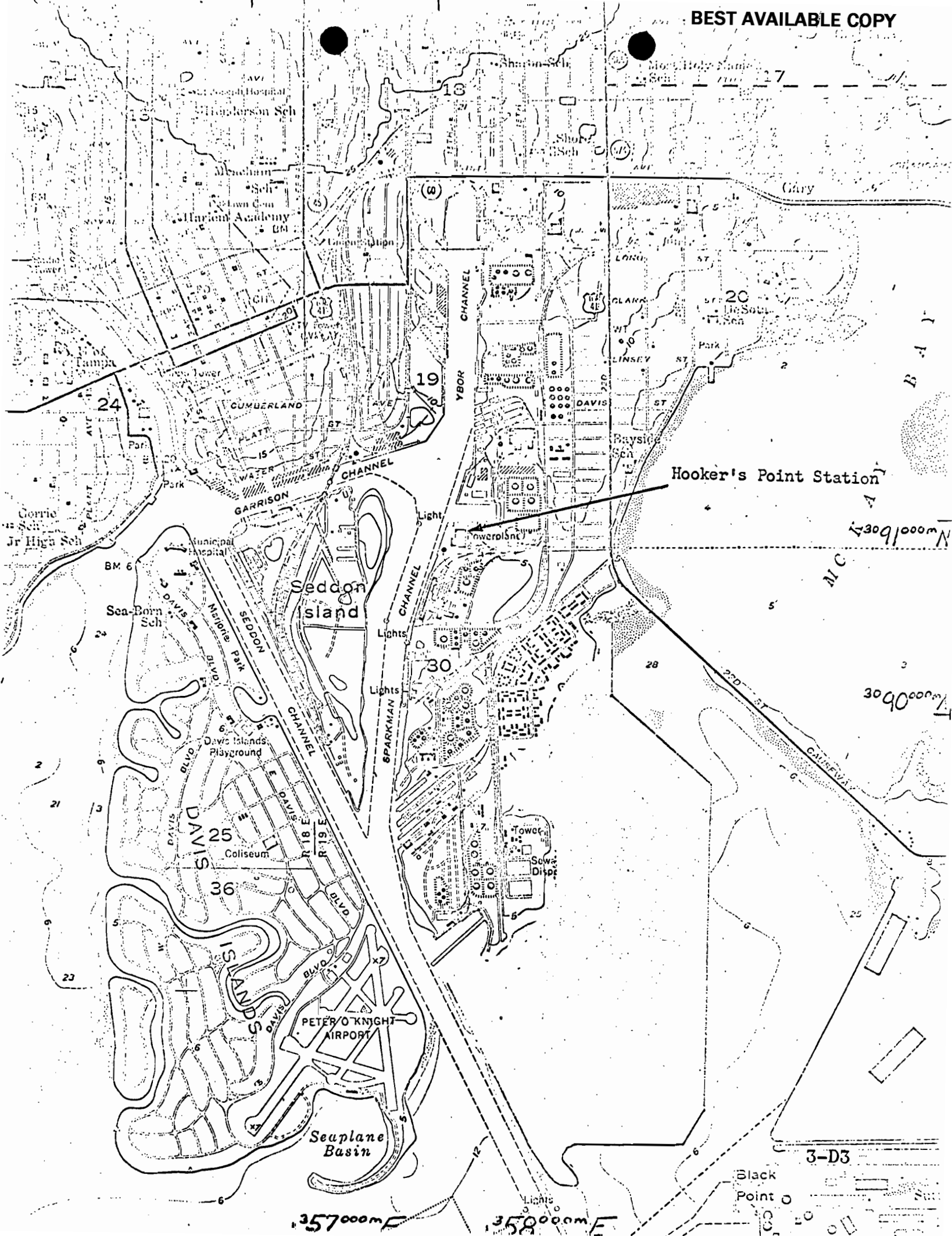
NOTES

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

3-D2

PLOT PLAN



B. Fuels

11320 MM BTU/day

Type (Be Specific)	Daily Consumption	Gross Maximum Heat Output	Relate to Flow Diagram
Bunker "C" Fuel Oil	616,000 lb/day	11.32 x 10^9 BTU/day 472 MM/hr.	(1)
Liquimag	271 lb/day	17.3 x 10^5 BTU/day	(2)

C. Products

Description	Average Daily Production (Tons/Day. Lbs/Hr. etc.)
Electricity	973 MWH/day > 40mw

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

If operation or process is seasonal, describe: _____

Allowable part 1132
SO2 9056

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_2, SO_3, Flyash

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.

N/A

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	308	
Fuel Sulfur	12,650	
MgO Ash	162	
List Manufactured Products:		
Electricity		
List Solid Wastes:		
None		
List Liquid Wastes:		
None		
Totals	13,120	0
Airborne Wastes (Total input minus total output)	13,120	

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	Periods of Flow Day/ yr.	Temp. of Discharge (°F)
Stack	(3)	172.7	127.5	23.9	361	325° F

B. Tabulation of Discharged Contaminants

	Discharge Point – Relate to Flow Diagram	Flow Rate at Std. Cond. (cfm)	Total Contaminants Discharged: Particulates Gr/ft3 (Std.Cond.)	Particulates lbs./ Day	Other Contaminants (F^-, SO_X, NO_X etc.) Gr/ft3 (Std. Cond.)	Other Contaminants lbs/ Day	Other Contaminants Gr/ft3 (Std.Cond)	Other Contaminants lbs/ Day
Avg. Cond.	Stack (3)	103,000	0.0223	470	1.200	25,300		
Peak Emission	Stack (3)	193,000	0.0223	–	1.200			
	Totals			470		25,300		

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.

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

SUBJECT: **Permit Renewal - TECO - Hookers Point Unit #6**

Attached is Permit No. AO29-203002 for the operation of the above company's steam generator designated as Unit #6. 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:AO203002

PERMIT APPLICATION STATUS SHEET

COMPANY: Tampa Electric Co.

PROCESSOR: G. Maier

PERMIT NO.: A029-203002

DATE RECEIVED: 09/23/91

PE SEAL & SIGNATURE: (Y) N

CHECK: (Y) N

Default Date 12/21/91

	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	JK
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:203002
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 #6
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:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

179100

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Tampa Electric Date 9-30-91

Address PO Box 3285 Tampa Dollars $ 2000.00

Applicant Name & Address Same

Source of Revenue Steam Boilers 203002; 203001

Revenue Code 1032 Application Number A029-202997; 202998

Ck 033601 By Alvine King 202999

203000

Tampa Electric A029-203002

Hooker Point #6

Renewal of A029-125691

Stack test books OK. application complete, 10-21-91

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.

COMPANY NAME Tampa Electric Co.

JJ.
Processor

File Number A029-125691

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

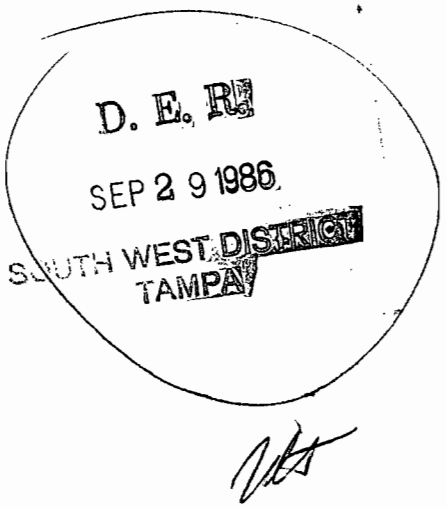
Clock Days		Date Task Completed	Initials
3	Logging by Sec'y	10/6/86	[illegible]
5	Review by Sec. head and transfer to permitting Engineer		
28	Completeness Review		
	request additional info *		
	information received *		
	Public Notice Published * (for Air Construction Only)		
55	Letter of Intent sent 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

TOM Air Esther

TAMPA ELECTRIC
A TECO ENERGY COMPANY

September 25, 1986



Dr. Richard D. Garrity, Ph.D.
Florida Department of
Environmental Regulation
7601 Highway 301 North
Tampa, Florida 33610-9544

Mr. Roger P. Stewart
Hillsborough County Environmental
Protection Commission
1900 - 9th Avenue
Tampa, Florida 33605

Re: Tampa Electric Company
Air Operations Permit
Renewal Application
Hookers Point Station
Boiler Nos. 1, 2, 3, 4, 5, and 6

Gentlemen:

Enclosed please find an original and four (4) copies of an Application for Renewal of Permit to Operate an Air Pollution Source for each boiler, including an operation and maintenance plan for the station and an authorization letter for the applicant.

The six application packages, together with a check for a total of $2,070.00 ($345.00 per application) to the Hillsborough County Board of County Commissioners and a check for a total of $3,000.00 ($500.00 per application) to the Florida Department of Environmental Regulation, are included with Mr. Stewart's copy.

If you should have any questions, please feel free to call.

Sincerely,

A. Spencer Autry
Manager
Environmental Planning

ASA/jst/020/EE1

Enclosures

TAMPA ELECTRIC
A TECO ENERGY COMPANY
P.O. Box 111 Tampa, Florida 33601

TAMPA FLA. SEP 25 '86

U.S. POSTAGE ≡0.22 FMETER 8219508

Richard D. Garrity, Ph.D.
Florida Department of
Environmental Regulation
District Office
7601 Highway 301 North
Tampa, Florida 33610-9544

APPLICATION TRACKING SYSTEM 10/03/86

APPL NO:125691
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:ESTLER
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 6
STREET:HEMLOCK AVE. CITY:TAMPA
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:TAMPA ELECTRIC CO.
STREET:P.O. BOX 111 CITY:TAMPA
STATE:FL ZIP:33601 PHONE:813-223-4111
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:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 105557

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Tampa Electric Co. Date 10-2-86

Address P.O. Box 111 Tampa FL Dollars $ 3,000.00

Applicant Name & Address same

Source of Revenue Renewal of Air permits A029-125691 A029-125690 A029-125688 A029-125689

Revenue Code 001032 Application Number A029-125685 A029-125686

Ck # 65563 By Alvina Kung

HOOKER PT A029-47721

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.

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

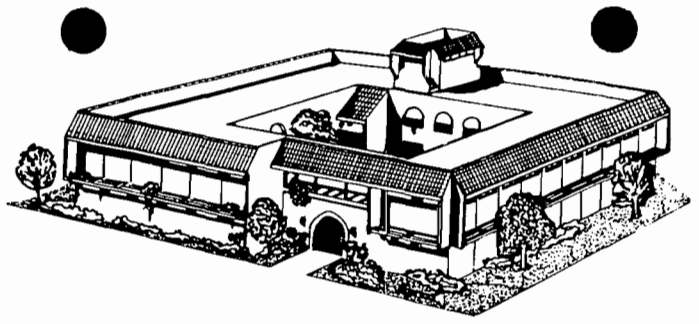
4. Specify that excess emissions refer to 6-minute average opacity.

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

SOUTHWEST 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

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. A029-47721

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 Sabeeta
Clerk

6/13/86
Date

STATE APIS 9-24
COUNTY 9-25

ILLSBOROUGH COUNTY ENVIRONMENTAL
PROTECTION COMMISSION

INSPECTION REPORT
EXECUTIVE SUMMARY

TYPE III

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]
NFORCEMENT ( )
NNOUNCED [X]
ERSONS CONTACTED-TITLE BOB STAFFORD / DAVID JELLERSON

PERMIT REVIEW ( )
OTHER ( )
UNANNOUNCED ( )

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 CONSUMPTI 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, OR ANY COMBINATION, OF 4 POWER GENERATING TURBINES. UNIT #6 IS DEDICATED TO ONE TURRINE.

SPECTION COMMENTS FOR APIS (LIMIT 50 SPACES)

SPECTOR'S SIGNATURE Michael D. Elliott / 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						

a. Wet scrubber, electrostatic precipitator, fabric filter, etc.

b. 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 5	Common with	Boiler 1			Particulate	Stack Test	16.7	10.5	24.4
					Sulf.Dioxide	Fuel Anal.	446.9	281.1	652.7
HP 6			40.29	325	Particulate	Stack Test	27.7	29.0	46.7
					Sulf.Dioxide	Fuel Anal.	493.1	516.6	832.5

UNIT: 6 HOOKERS POINT 1984

3189 GAL. OIL/HR × 151,387 BTU/GAL. = 482.8 MMBTU/HR (AVG)

DESIGN = 778.0 MMBTU/HR. (MAX.)

6,088,475 GAL. OIL/19 × 151,387 BTU/GAL. = 921,716 MMBTU/1984 (ACTUAL)

PARTICULATE EMISSIONS

0.06 lbs. PART/MM BTU × 482.8 MMBTU/HR = 29.0 lbs. PART./HR. (AVG.)

0.06 lbs. PART/MM BTU × 778.0 MMBTU/HR = 46.7 lbs. PART/HR. (MAX.)

0.06 lbs. PART/MM BTU × 921,716 MM BTU/1984 × 1 TON/2,000# = 27.7 TONS PART/1984

SULFUR DIOXIDE EMISSIONS

1.07* lbs. SO_2/MM BTU × 482.8 MMBTU/HR = 516.6 lbs SO_2/HR (AVG)

1.07* lbs. SO_2/MM BTU × 778.0 MMBTU/HR = 832.5 lbs. SO_2/HR (MAX

1.07* lbs. SO_2/MM BTU × 921,716 MM BTU/1984 × 1 TON/2000 lb. = 493.1 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 = $\left(1.32 \frac{lb}{hr}\right)\left(\frac{8021 \text{ hrs op.}}{yr}\right)\left(\frac{1 \text{ Ton}}{2000 lbs}\right) = 5.29 \text{ TONS/yr}$

GANNON 5+6 FLYASH SILO

EMISSION = $\left(\overset{\text{DESIGN}}{2.07 \frac{lb}{hr}}\right)\left(\frac{8021 \text{ hrs. op}}{yr}\right)\left(\frac{1 \text{ Ton}}{2000 lbs}\right) = 8.58 \text{ TONS/yr.}$

GANNON 4 ECONOMIZER ASH SILO

EMISSION = $\left(\overset{\text{DESIGN}}{0.14 \frac{lb}{hr}}\right)\left(\frac{7133 \text{ hrs op.}}{yr}\right)\left(\frac{1 \text{ Ton}}{2000 lbs}\right) = 0.50 \text{ TONS/yr}$

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 = $\frac{133{,}313 \text{ gal oil } 1984}{120 \text{ hrs. operation}} = 1111 \frac{\text{gal}}{\text{hr.}}$

$$V = (133{,}313 \text{ gals})(7.121 \tfrac{\text{lb}}{\text{gal}})(\tfrac{1 \text{ yr}}{120 \text{ hrs. op.}})(\tfrac{1}{3600 \text{ sec}})(\tfrac{239 \text{ ft}^3 \text{ gas}}{1 \text{ lb oil}})(\tfrac{1470^\circ R}{492^\circ R})(\tfrac{1}{95.7 \text{ ft}^2}) =$$
16.40 fps

$$\text{Flow (AVG)} = (16.40 \text{ fps})(95.7 \text{ ft}^3)(60 \tfrac{\text{sec}}{\text{min}}) = 94{,}169 \text{ cfm}$$

SULFUR DIOXIDE (AVG)

$$(133{,}313 \tfrac{\text{gal}}{\text{yr}})(7.121 \tfrac{\text{lb}}{\text{gal}})(.0037 \tfrac{\text{Ton S}}{\text{Ton oil}})(1.9 \tfrac{\text{Ton SO}_2}{\text{Ton S}})(\tfrac{1 \text{ Ton}}{2000 \text{ lb}}) = 3.3 \tfrac{\text{Ton}}{\text{YR}}$$
$$(1111 \tfrac{\text{gal}}{\text{hr}})(7.121 \tfrac{\text{lb}}{\text{gal}})(.0037 \tfrac{\text{Ton S}}{\text{Ton oil}})(1.9) = 55.6 \tfrac{\text{lb}}{\text{hr.}}$$

SULFUR DIOXIDE (MAX)

$$(1885 \tfrac{\text{gal}}{\text{hr}})(7.121 \tfrac{\text{lb}}{\text{gal}})(.0037 \tfrac{\text{Ton S}}{\text{Ton oil}})(1.9 \tfrac{\text{Ton SO}_2}{\text{Ton S}}) = 94.4 \tfrac{\text{lb}}{\text{hr}}$$

PARTICULATE (AVG)

$$(133{,}313 \tfrac{\text{gal}}{\text{yr}})(7.121 \tfrac{\text{lb}}{\text{gal}})(19468 \tfrac{\text{Btu}}{\text{lb}})(\tfrac{0.1 \text{ lb}}{\text{mm Btu}})(\tfrac{1 \text{ Ton}}{2000 \text{ lbs}}) = 0.924 \tfrac{\text{Ton}}{\text{YR}}$$
$$(1111 \text{ gal/hr})(7.121 \tfrac{\text{lb}}{\text{gal}})(19{,}468 \tfrac{\text{Btu}}{\text{lb}})(\tfrac{0.1 \text{ lb}}{\text{mm Btu}}) = 15.4 \tfrac{\text{lb}}{\text{hr.}}$$

PARTICULATE (MAX)

$$(1885 \tfrac{\text{gal}}{\text{hr}})(7.121 \tfrac{\text{lb}}{\text{gal}})(19468 \tfrac{\text{Btu}}{\text{lb}})(\tfrac{0.1 \text{ lb}}{\text{mm Btu}}) = 26.1 \tfrac{\text{lb}}{\text{hr}}$$

CANNON

UNIT: 6 YEAR 1984

$\frac{119.7 \text{ TONS}}{\text{HR}} \times \frac{2{,}000 \text{ lbs.}}{\text{TON}} \times \frac{12{,}480 \text{ BTU}}{\text{lb.}} = \frac{2987.7 \text{ MMBTU}}{\text{HR.}}$ (AVG)

DESIGN = $\frac{3{,}798 \text{ MMBTU}}{\text{HR.}}$ (MAX)

$\frac{809{,}008 \text{ TONS}}{\text{YR.}} \times \frac{2{,}000 \text{ lbs.}}{\text{TON}} \times \frac{12{,}480 \text{ BTU}}{\text{lb.}} = \frac{20{,}192{,}840 \text{ MMBTU}}{1984}$ (ACTUAL)

PARTICULATE EMISSIONS

$\frac{0.03 \text{ lbs. PART.}}{\text{MM BTU}} \times \frac{2{,}987.7 \text{ MMBTU}}{\text{HR.}} = \frac{89.6 \text{ lbs. PART.}}{\text{HR.}}$ (AVG)

$\frac{0.03 \text{ lbs PART}}{\text{MM BTU}} \times \frac{3{,}798 \text{ MMBTU}}{\text{HR}} = \frac{113.9 \text{ lbs. PART.}}{\text{HR.}}$ (MAX)

$\frac{0.03 \text{ lbs. PART.}}{\text{MM BTU}} \times \frac{20{,}192{,}840 \text{ MM BTU}}{1984} \quad \frac{1 \text{ TON}}{2{,}000 \text{ lb}} = \frac{302.9 \text{ TONS PART.}}{1984}$

SULFUR DIOXIDE EMISSIONS

$\frac{1.85^{*} \text{ lbs. } SO_2}{\text{MM BTU}} \times \frac{2987.7 \text{ MMBTU}}{\text{HR}} = \frac{5{,}527.2 \text{ lbs. } SO_2}{\text{HR.}}$ (AVG)

$\frac{1.85^{*} \text{ lbs } SO_2}{\text{MM BTU}} \times \frac{3{,}798 \text{ MMBTU}}{\text{HR}} = \frac{7026.3 \text{ lbs } SO_2}{\text{HR}}$ (MAX)

$\frac{1.85^{*} \text{ lbs. } SO_2}{\text{MM BTU}} \times \frac{20{,}192{,}840 \text{ MMBTU}}{1984} \times \frac{1 \text{ TON}}{2{,}000 \text{ lb.}} = \frac{18{,}678.4 \text{ TONS } SO_2}{1984}$

* $\frac{\text{lbs } SO_2}{\text{MM Btu}}$ Value of 1.85 is a weighted average for 1984.

GRANITE

UNIT: 6 YEAR 1984

$\frac{119.7 \text{ TONS}}{\text{HR}} \times \frac{2{,}000 \text{ lbs.}}{\text{TON}} \times \frac{12{,}480 \text{ BTU}}{\text{lb.}} = \frac{2{,}987.7 \text{ MM BTU}}{\text{HR.}}$ (AVG)

DESIGN = $\frac{3{,}798 \text{ MM BTU}}{\text{HR.}}$ (MAX)

$\frac{809{,}008 \text{ TONS}}{\text{YR.}} \times \frac{2{,}000 \text{ lbs.}}{\text{TON}} \times \frac{12{,}480 \text{ BTU}}{\text{lb.}} = \frac{20{,}192{,}840 \text{ MM BTU}}{1984}$ (ACTUAL)

PARTICULATE EMISSIONS

$\frac{0.03 \text{ lbs. PART.}}{\text{MM BTU}} \times \frac{2{,}987.7 \text{ MM BTU}}{\text{HR.}} = \frac{89.6 \text{ lbs PART.}}{\text{HR.}}$ (AVG)

$\frac{0.03 \text{ lbs. PART}}{\text{MM BTU}} \times \frac{3{,}798 \text{ MM BTU}}{\text{HR}} = \frac{113.9 \text{ lbs. PART.}}{\text{HR.}}$ (MAX)

$\frac{0.03 \text{ lbs. PART.}}{\text{MM BTU}} \times \frac{20{,}192{,}840 \text{ MM BTU}}{1984} \times \frac{1 \text{ TON}}{2{,}000 \text{ lb}} = \frac{302.9 \text{ TONS PART.}}{1984}$

SULFUR DIOXIDE EMISSIONS

$\frac{1.85^{*} \text{ lbs. } SO_2}{\text{MM BTU}} \times \frac{2987.7 \text{ MM BTU}}{\text{HR}} = \frac{5{,}527.2 \text{ lbs. } SO_2}{\text{HR.}}$ (AVG)

$\frac{1.85^{*} \text{ lbs. } SO_2}{\text{MM BTU}} \times \frac{3{,}798 \text{ MM BTU}}{\text{HR}} = \frac{7{,}026.3 \text{ lbs } SO_2}{\text{HR}}$ (MAX)

$\frac{1.85^{*} \text{ lbs. } SO_2}{\text{MM BTU}} \times \frac{20{,}192{,}840 \text{ MM BTU}}{1984} \times \frac{1 \text{ TON}}{2{,}000 \text{ lb}} = \frac{18{,}678.4 \text{ TONS } SO_2}{1984}$

* $\frac{\text{lbs } SO_2}{\text{MM Btu}}$ value of 1.85 is a weighted average for 1984.

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,b]	Processes or Operations Releasing Pollutants to the Atmosphere[c,d]	Raw Materials Used for Processes or Operations[e]				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.

SECTION V - STACK AND POLLUTANT EMISSIONS DATA

STACK DATA					ESTIMATE OF POLLUTANT EMISSIONS				
Source Code[a]	Height Above Grade ft.	Inside Diameter at Top ft.	Exit Gas Velocity ft./sec.[b]	Exit Gas Temperature °F.[c]	Pollutant[d]	Technique[e]	Quantity tons/yr.	Average lb/hr.	Maximum lb/hr.
Hookers Point 5	Common with Boiler		No. 1		Particulate	Stack Test	16.7	10.5	24.4
					Sulf. Dioxide	Fuel Anal.	446.9	281.1	652.7
Hookers Point 6	280	9.41	40.29	325	Particulate	Stack Test	27.7	29.0	46.7
					Sulf. Dioxide	Fuel Anal.	493.1	516.6	832.5

a. List code numbers corresponding to each emissions source reported in Section II, III, and IV.
b. Values should be representative of average flow conditions for hours of operation.
c. At actual flow conditions.
d. The pollutants to be covered in this survey are specified in the accompanying instructions.
e. Give stack test data if available (indicate stack sampling method used), otherwise, specify basis used. If unknown, please do not complete these columns.
f. Note technique used to arrive at estimation; AP-42, stack test, etc.

BEST AVAILABLE COPY

HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION

A029 - 12601 APIS DER 2/7

INSPECTION REPORT
EXECUTIVE SUMMARY

PLANT NAME TECO NEDS 040 DATE/TIME 1/10/85 AM

PLANT LOCATION GANNON # OF NEDS POINTS

PROCESS DESCRIPTION Power Generating Boiler #6 using coal for fuel and Electrostatic precipitator for control device.

COMPLIANCE VERIFICATION	(✓)	PERMIT REVIEW	( )
ENFORCEMENT	( )	OTHER	(✓) Type II audit
ANNOUNCED	(✓)	UNANNOUNCED	( )

PERSONS CONTACTED-TITLE Hugh Smith / Neil Oakes

NEDS POINTS CHECKED	NEDS POINTS IN COMPLIANCE	NEDS POINTS IN VIOLATION
06		

SUMMARY OF FINDINGS While visiting the Gannon Station, Unit #6 was being tested for TSP, SO_2 and V.E. All test parameters were being conducted simultaneously, at least during the first particulate test run which started at 9:30 a.m. Mr. Gary McRae and two assistants were at the stack performing the TSP and SO_2 tests. Mr. Greg Williams was collecting operating parameter data ($\%O_2$, opacity etc). At about 10:15 a control light turn "on" in the control room "Precipitator Control RM FIRE". Before entering the plant building Mike + I noticed two short periods (1-2 min) of dust leakage around the bottom of the precipitator hopper. The second one occured while we were entering the building with Hugh Smith. I asked him about it and he said he did not know what could cause such condition. We noticed that during the rest of the visit and as we left the plant ground this condition was not seen anymore. I suspect this was tied to a short boiler upset that caused an overload to the precipitator. I report the V.E during this period to be higher. ash handling

~~INSPECTION COMMENTS FOR APIS (LIMIT 50 SPACES)~~

INSPECTOR'S SIGNATURE [signature] / MIKE S.

COMPANY NAME Tampa Electric Co. RRG ~~CWK~~ Processor

Hookers Point Boiler # 6

File Number A029-47721

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	11-3-81	[illegible]
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		
90	Final Issuance/denial	1-27-82	RKT

*If needed, If not indicate by N/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. Four samples are taken for analysis, one of the four being sent to the fuel supplier. 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	86.0 BBLS/HR	220,000 LBS/HR	900°F	960 psi
2	86.0	220,000	900°	960
3	118.8	275,000	900°	960
4	118.8	275,000	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 weekly 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 and 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. On-going 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 on magnetic tape for future reference.

Please file 1029-7104

D.E.R.
MAR 14 1980
SOUTHWEST DISTRICT
TAMPA

TECO
TAMPA ELECTRIC COMPANY

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

March 7, 1980

RECEIVED
MAR 11 1980
H.C.E.P.C.

Mr. Joe Griffiths
Hillsborough County Environmental
Protection Commission
1900 9th Avenue
Tampa, Florida 33605

RE: Stack Emission Test
Hookers Point Unit 6
Tampa Electric Company

Dear Joe:

Enclosed please find two (2) copies of a stack test report for a compliance test performed on Hookers Point Unit 6 on January 31, 1980.

As stated in the Summary of Results, the average particulate emission rate for three test runs was 0.05 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 from fuel analysis conducted by our Central Testing Laboratory was 1.07 lbs. per million BTU which is in compliance with Florida Administrative Code, Chapter 17-2.05 (6)(e)(1)(b)2.b of 1.1 lbs. per million BTU.

Also included are nitrogen dioxide results, a process statement, and visible emission report. If you have any questions, please call.

Yours truly,

William N. Cantrell

W.N. Cantrell
Engineer
Environmental Planning

WNC:mo
enclosure

cc: J.D. Hicks
H.A. Turner
A. Kaiser
W.J. Johnson
A.S. Autry
F.L. Burkhard
R.P. Murray

PLANT 0038 TECO HOOKERS POINT UTILITY FILE STATUS SENT
FOOT OF MEMLOCK AVE POWER PLANT
TAMPA FL. 33605
ALEX KAISER AQCR=052 SIC=4911
PO BOX 111 LAT=28:02:32N LON=82:25:31W
TAMPA FL . 33601 UTM ZONE 17 358.0KM E. 3091.0KM N.

POINT 03 CONST PATS# OPER PATS# A029-25432
ISS= / / EXP= / / ISS=12/18/79 EXP=12/01/84
OIL FIRED BOILER
SOURCE= IPP=00 EXIST COMM.PNTS. -
STACK HT= 280FT DIAM=11.3FT TEMP= 265F FLOW= 356400CFM PLUME= 0FT
BOILER CAP= 411MBTU/HR FUEL FOR SPACE HEAT= .0%
OPERATING PROCESS RATES YOR=79 RAW MATERIAL= 0 OTHER
PRODUCT 0 OTHER FUEL 0 OTHER
NORMAL COND. DEC-FEB=11% MAR-MAY=30% JUN-AUG=42% SEP-NOV=17%
PERMIT SCHEDULE 12HRS/DAY 6DAYS/WK 52WKS/YR
AOR FOR 12/31/79 10HRS/DAY 6DAYS/WK 52WKS/YR

COMPLIANCE NEDS=1 QRC=2 UPDATE08/79 SCHED.08/80 UPDATED08/15/79
PERMIT=1 YOR=79 INSPECTED / / NEXT DUE 08/01/80

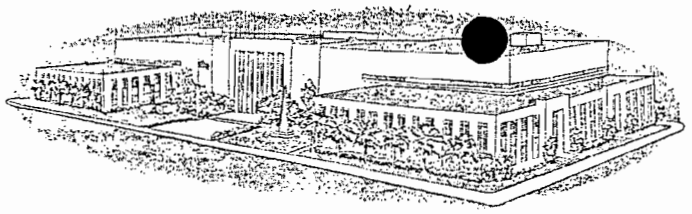
/

SCC'S

1-01-004-01 YOR=79 SOURCE=8 RATE= 7574 MAX= 1.999 KGL/BRN
FUEL CONT SO2= .95% ASH= 0.0% 411MBTU FYOR=79 CONFID=2

POLLUTANTS MONITORED

TSP 11101 NORM= 41.00 EST/METH= 55/1 MAX.ALW= 78 TNS/YR.
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 08/28/80 TEST/FREQ=1
TESTED 08/28/79 AGENCY=3 REG=.05(2) COMPLIANCE=1
EMITTED= 35.00 ALLOWED= 41.00LBS/HR OP-RATE= 410 OTH/BR
VE 11204 NORM= 600.03 EST/METH= 60003/1 MAX.ALW= 20 TNS/YR.
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 08/28/80 TEST/FREQ=1
TESTED 08/28/79 AGENCY=3 REG=.05(1)A COMPLIANCE=1
EMITTED= 600.03 ALLOWED= 0.20LBS/HR OP-RATE= 411 OTH/BR
CO 42101 NORM= 0.00 EST/METH= 42/3 MAX.ALW= 0 TNS/YR.
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE / / TEST/FREQ=
SO2 42401 NORM= 452.00 EST/METH= 761/1 MAX.ALW= 856 TNS/YR.
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 08/28/80 TEST/FREQ=1
TESTED 08/28/79 AGENCY=3 REG=.05(8) COMPLIANCE=1
EMITTED= 402.00 ALLOWED= 451.00LBS/HR OP-RATE= 410 OTH/BR
NOX 42603 NORM= 0.00 EST/METH= 882/3 MAX.ALW= 0 TNS/YR.
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE / / TEST/FREQ=
TESTED 00/00/78 AGENCY= REG= COMPLIANCE=
EMITTED= 1.52 ALLOWED= 0.00LBS/HR OP-RATE= 0 OTHER



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 agreed to five year permits after telephone conversation 9/19/78. Dan Williams

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

TECO
Hookers Pt. #6

File Number A029-7104

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	
83	Permit Package to Dist. Engr.	9-18-78	DW
85	Permit Package to Dist. Manager	9-18-78	DW
90	Final Issuance/denial	9/20/78	RKT

*If needed, If not indicate by N/A

FILE 70117

10-75 MOD. 2

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AIR PERMIT AND INVENTORY SYSTEM

POINT SOURCE CODING FORM

DATE 9-27-78

NAME OF PERSON COMPLETING FORM W. N. Bass

ACTIONS

DELETE	1
ADD	2
CHANGE	3 ✓

STATE	COUNTY	AQCR	PLANT #	POINT ID
1 2	3 4 5 6	7 8 9	10 11 12 13	14 15
1 0	1 8 0 0	0 5 2	0 0 3 8	0 6

YEAR OF RECORD	COMPANY NAME	COMPANY MAILING ADDRESS	COMPANY CITY	ZIP CODE	ACTION
16 17	18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41	42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57	58 59 60 61 62 63 64 65 66 67 68 69 70 71 72	73 74 75 76 77	78 79 80
					C 7

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	SPLIT TYPE	SOURCE TYPE	ACTION
16 17	18 19 20 21 22 23 24 25 26 27	28 29 30 31 32 33	34 35 36 37 38 39	40 41 42 43 44 45 46 47 48 49	50 51 52 53 54 55	56 57 58 59 60 61	62 63 64 65 66 67 68	69 70 71 72 73 74 75	76	77	78 79 80
7 8	C —			A 0 2 9 - 7 1 0 4	0 9 2 7 7 8						U 5

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 17	18 19 20 21 22 23 24 25	26 27 28 29 30 31	32 33 34 35 36 37	38 39 40 41 42 43	44 45 46 47 48 49	50 51 52 53 54 55	56 57 58 59 60 61	62 63 64 65 66 67	68 69 70 71 72 73 74 75	76 77	78 79 80
											9

YEAR OF RECORD	DESCRIPTION OF POINT SOURCE	ACTION
16 17	18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75	76 77 78 79 80
		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 SO_2 (M M D D Y Y)	DUE DATE FOR PARTICULATE EMISSIONS TEST RESULTS (M M D D Y Y)	DUE DATE FOR SO_2 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)	SO_2 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 17	18 19 20 21 22 23 24	25 26 27 28 29 30 31	32 33 34 35 36 37 38	39 40 41 42 43 44 45	46 47	48 49 50 51 52 53 54	55	56 57 58	59 60 61 62 63 64 65	66 67	68 69 70 71 72 73 74	75 76	77	78 79 80
	8 0 3 1 3 7 8	0 3 1 3 7 8	0 3 1 3 7 8	0 3 1 3 7 8	A									1

PERMIT WORK SHEET

SOURCE Teco Hooker Pt #6 DATE 9-14-78

COUNTY Hillsborough TYPE PERMIT 29-710f

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

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		

TYPE PERMIT ACTION

New Source (No related permits) _____
Renewed or modified permit _____
Point source deleted _____
Point source added _____
New Source replacing old source _____

DESCRIPTION OF PRIMARY SOURCE

Boiler _____
Solid Waste (Incinerat
Other Combustion _____
Process _____
Product (Name) _____

BRIEF DESCRIPTION OF PROCESS

778 MMBTU Steam generator using #6 fuel oil

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

STACK DATA

Height (FT) _____
Diam. (FT.) _____
Temp. (°F) _____
Flow Rate (CFM) _____
Plume Height (FT) _____
Common Stack (Explain) _____

OPERATING DATA

Process Rate _____
Process Rate _____ TON
Max Design Rate _____ #/Hr
Combustion (Units) Gal TONS FT
Rate _____ Unit/Hr _____ Unit/
Heat Content _____ BTU/Ga
Boiler Capacity _____ BTU/Hr
Max Design Rate _____ Unit/
Fuel (Name) #6 %s 1% %A

COMMENTS:

fuel oil SO_2 $3986 \times 8 \times .02 = 637.8\ lb/hr\ SO_2$ $0.8\ lb/MMBTU$

Ter { TSP 44.7 lb/hr 36.5 T/y allo 89.4 lb/hr
SO2 840.7 lb/hr 686.5 T/y allo 983.8 lb/hr

Particulates

Particulates

Particulates

SO_2

NO_x

HC

F

EMISSIONS

POLLUTANT	lb/hr		lb/ton Product		lb/10^6 BTU		Regulati
	Emission	Allowable	Emission	Allowable	Emission	Allowable	
rticulate							
O_2							
O_x							

PACITY Test _____ Allowable _____

SIS 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): _____

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

ANNUAL OPERATIONS REPORT FORM FOR AIR EMISSIONS SOURCES

D.E.R.
MAR 13 1978
SOUTHWEST DISTRICT
TAMPA

For each permitted emission point, please submit a separate report for calendar year 19 77 prior to March 1st of the following year.

I GENERAL INFORMATION:

1. Source Name: Tampa Electric Company (Hookers Point Boiler #6)
2. Permit Number: AO 20-2483
3. Source Address: P. O. Box 111
   Tampa, Florida 33601
4. Description of Source: Fossil fuel steam generator

II OPERATING SCHEDULE:

24 hrs/day 7 days/wk 52 wks/yr
actual hours of operation 1633

III RAW MATERIAL INPUT PROCESS WEIGHT:

Raw Material	Input Process Weight
	tons/yr
	tons/yr
N/A	N/A tons/yr
	tons/yr
	tons/yr

IV TOTAL FUEL USAGE, including standby fuels. If fuel is oil, specify weight and sulfur content (e.g., No. 6 oil with 1%S).

10^6 cubic feet Natural Gas	6508 10^3 gallons No. 6 Oil, 0.9 %S
10^3 gallons Propane	10^3 gallons Kerosene
tons Coal	10^6 lb Black Liquor Solids
tons Carbonaceous	tons Refuse

Other (Specify type and units)

V EMISSION LEVEL (tons/yr):

A.

19.3 Particulates	Carbon Monoxide
Nitrogen Oxide	Total Reduced Sulfur
Hydrocarbon	Flouride
445.5 Sulfur Dioxide	

Other (Specify type and units)

B. Method of calculating emission rates (e.g., use of fuel analysis and materials balance, emission factors drawn from AP 42, etc.)
Fuel analysis and/or compliance testing.

VI CERTIFICATION:

I hereby certify that the information given in this report is correct to the best of my knowledge.

W. J. Johnson
Signature of Owner or Authorized Representative

W.J. Johnson, Acting Manager
Typed Name and Title Environmental Planning

3/8/78
Date

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 6)

MAILING ADDRESS: P. O. Box 111 (Attention: Jeff Rankin)

Tampa, Florida 33601

TELEPHONE NO: 813/879-4111

OPERATING PERMIT NO: FDER AO29-2483

SOURCE DESCRIPTION: Fossil-fuel steam generator

D.E.R.
APR 15 1977
SOUTH WEST DISTRICT
ST. PETERSBURG

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 3913

b. DESIGN CRITERIA: MAXIMUM OUTPUT 81.6 MW (from FPC-67 Form)
e.g. 850 MW, 750 tons/dy

c. ~~NORMAL~~(AVERAGE) OUTPUT 49.7 MW (during actual hours of operation
e.g. 424 MW, 670 tons/dy.

d. MAXIMUM PEAK THAT OCCURED DURING ANY ONE DAY 81.6 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 16,195 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. 117.7 tons of particulates 1146 tons of sulfur dioxide

-- tons of nitrogen dioxide -- tons of carbon monoxide

-- tons of hydrocarbon -- tons ____ (other)

b. ~~SOURCE~~ METHOD OF CALULATIONS USED IN DETERMINING EMISSION RATES

Particulates - gallons oil X $\frac{\text{BTU}}{\text{gal.}}$ X $\frac{\text{tons part.}}{\text{BTU}}$ = tons particulate

SO_2 - gallons oil X $\frac{\text{BTU}}{\text{gal.}}$ X $\frac{\text{tons } SO_2}{\text{BTU}}$ = 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

TECO
TAMPA ELECTRIC COMPANY

POST OFFICE BOX 111 TAMPA, FLORIDA 33601 TELEPHONE (813) 876-4111

September 14, 1976

Ms. Sandra Walters
Florida Department of
Environmental Regulation
Southwest District
9721 Executive Center Drive, N.
Suite 200
St. Petersburg, Florida 33702

Dear Ms. Walters:

As per your request, we are returning permit No. AO-29-2483 (Hookers Point No. 6) for the purpose of having Mr. Vest sign it.

We will look forward to receiving the fully executed copy back shortly.

Yours very truly,

Alex Kaiser, Director
Power Plant Engineering

Enclosure

Sent the signed copy to Mr. Kaiser on 9/17/76

Sandi

TECO
TAMPA ELECTRIC COMPANY

D. E. R.
AUG 16 1976
SOUTH WEST DISTRICT
ST. PETERSBURG

POST OFFICE BOX 111 TAMPA, FLORIDA 33601 TELEPHONE (813) 876-4111

August 4, 1976

RECEIVED
AUG 5 1976
H.C.E.P.C.

Mr. Arturo McDonald
Air Engineer
Hillsborough County Environmental
Protection Commission
7402 North 56th St., Bldg. 500
Tampa, Florida 33617

Dear Mr. McDonald:

Enclosed are three reports from Conservation Consultants, Inc. on the source compliance test for Unit No. 6 at Hookers Point Station.

The test was made on June 2, 1976 and a summary of the results is as follows:

Test #1	0.027 #/MBTU
Test #2	0.081 #/MBTU
Test #3	0.025 #/MBTU
Average	0.044 #/MBTU

The regulation governing the particulate emissions is 0.1 #/MBTU and the average emissions for the test period was 0.044 #/MBTU. As we have said in the past, the oil burning will continue to be well below the particulate emissions standards and we, therefore, request that no further testing be required.

Very truly yours,

A. Spencer Autry

A. Spencer Autry, Biologist
Environmental Planning

ASA:sac

0.97% S burned = 1.00 # SO_2/MM Btu.

J.L.T
File

TECO
TAMPA ELECTRIC COMPANY

Hookers Pt.

POST OFFICE BOX 111 TAMPA, FLORIDA 33601 TELEPHONE (813) 876-4111

July 15, 1975

Mr. Joe Tessatore
Florida Department of
Environmental Regulation
P. O. Box 9205
Winter Haven, Florida 33880

RE: Particulate Emission Testing

Dear Mr. Tessatore:

As per our recent telephone conversation, I would like to provide you with the data we have taken on particulate emissions from our Hookers Point Station. The actual results are enclosed, but the following is a brief synopsis of the tests:

Boiler No.	Date of Test	Particulate Emission	Fuel % Ash
5	7-9-74	0.0997 #/10^6 BTU	0.06[1]
6	6-25-74	0.43 #/10^6 BTU	0.06[2]

NOTE: (1) Assumed to be the same as June 25, 1974 sample
(2) Fuel sample taken during test - analysis sheet is enclosed

As you can see, Boiler No. 6 was in violation of the emission regulations and Boiler No. 5 was in compliance by a slim margin. As you can also see, the ash content of the oil was 0.06% during the June 25, 1974 test and was assumed to be the same for the July 9, 1974 test. The reason the ash content was so high was because high sulfur oil (1.7%) was being burned.

Since the time of the above testing, we have switched to low sulfur oil. This oil typically has an ash content of 0.01% or 1/6 the ash content of the oil burned during the emission tests. Obviously, the particulate emissions are much lower with the cleaner oil that we are now burning and although we have not run particulate emission tests, we have noticed a considerable improvement as far as visible emissions are concerned and are confident that the particulate emission regulations are now being complied with. Enclosed are results of a visible emissions check that was run June 23, 1975. We think these results, which are on the order of 1/20 of the allowable opacity, substantiate that particulate emissions we are now experiencing are within the allowable emission regulation.

The reason for bringing this matter up, as discussed on the telephone, is to determine if it is necessary for us to run annual particulate tests on the Hookers Point boilers as presently required by our operating permit. Since these boilers will continue to burn the clean low sulfur oil in the future, since the procedure and equipment for burning the oil will remain the same and since there is no removal equipment or cleanup device involved which must be checked periodically to ensure it is operating as designed, we feel that the particulate emissions can be adequately estimated by using the EPA emission factor of 8 # part/10^3 gallon oil or 0.055 # part/10^6 BTU. The alternative is to perform actual tests at a cost of approximately $2,000/boiler and we know you will agree that if there is no measurable benefit to be derived, then the public should not have to pay this amount of money.

We would be happy for you to come to Tampa and tour the Hookers Point Station if you think it would be helpful for you to get more familiar with our operation and procedures. Also, if you would like any other information, we will be happy to provide it for you.

We hope that after you have evaluated all the information, you will agree that annual testing of the boilers is not necessary. We will look forward to an early reply.

Yours very truly,

Jeff Rankin

Jeff Rankin
Senior Engineer
Environmental Planning

DJR:sac
Enclosures

cc: Mr. Bennie Caramella, HCEPC

SUMMARY

Hookers Point: Unit 5

32,350 lbs. of fuel per hour
18,777 BTU's per pound
607.4 million BTU's/hr.
607.4 X 0.1 lb. = 60.74 lbs. particulate per hour allowed for this unit

Hookers Point: Unit 6

46,430 lbs. of fuel per hour
18,509 BTU's per pound of fuel
859.4 million BTU's per hour
859.4 X 0.1 lbs. = 85.9 lbs. particulate per hour allowed for this unit

	Actual lbs. Particulate/hr.	Lbs. Particulate/ Million BTU of Heat Input
Hookers Point:		
Unit 5		
Run 1	59.8	
Run 2	61.36	
Average	60.58	.0997
Unit 6		
Run 1	296.81	
Run 2	447.99	
Average	372.40	.43

TECHNICAL SERVICES, INC.
103 Stockton Street
P. O. Box 628
Jacksonville, Fla. 32201

SOURCE SAMPLING CALCULATIONS
PARTICULATE EMISSIONS

PLANT-TECO HOOKERS POINT — DATE -6/25/74
STACK - UNIT NO. 6 — RUN 2 FROM 15:30-17:00
WEATHER CONDITIONS - CLOUDY — PB- 29.78 IN HG — PS - 29.75 IN HG
AS' - 113.1 SQ. FEET — TS - 782.5 DEGREES R — TM - 555 DEGREES R — H - 0.528 IN H2O
ΔH - 0.75 ON H2O — AN -0.000341 SQ. FT — CP- 0.85 — VM - 36.8 CF — VC - 70 ML
TOTAL TIME - 72 MIN. — NPTS - 24 — ORSAT: CO2 - 9.00 — O2 - 4 — CO - 0 — N2- 87

1.	Volume Water Vapor	1. 3.318	SC
2.	Stack Gas Volume - STPD	2. 35.042	SC
3.	Total Volume	3. 38.36	SC
4.	Moisture in Stack Gas - Volume Fraction	4. 0.086	
5.	Dry Stack Gas - Volume Fraction	5. 0.914	
6.	Assumed Moisture in Stack Gas - Volume Fraction	6. 0.1	
7.	Molecular Weight of Stack Gas - Dry Basis	7. 29.6	
8.	Molecular Weight of Stack Gas - Stack Conditions	8. 38.6	
9.	Specific Gravity of Stack Gas Relative to Air	9. 0.99	
10.	Excess Air - Percent	10. 21.	%
11.	Average of Factor ($\sqrt{H} \times TS$)	11. 14.78	
12.	Average Stack Velocity	12. 2207.3	FP
13.	Actual Stack Gas Flow Rate	13. 249640	AC
14.	Actual Stack Gas Flow Rate Dry	14. 228048	CF
15.	Stack Gas Flow Rate - STPD	15. 153583	SC
16.	Percent Isokinetic	16. 105.1	%

MG		GR/SCF	GR/ACF	MG/SCF	MG/ACF	LBS/HR
THIMBLE	772.7	0.3395	0.2090	778.50	478.81	447.99
TOTAL	772.6	0.3395	0.2090	778.50	478.81	447.99

Comments: Operating at maximum attainable load of 70 MW
859.4 X 10^6 BTU/hr heat input

Test Conducted By: A. E. Henderson & F. M. Raggett

SOURCE SAMPLING FIELD DATA SHEET

Plant TECO BOOKER POINT

Sampling Location Unit 6 Stack

Date 6/25/74 Run No. 1

Time Start 1310 Time End 1500

Sampling Time/Point 3 min.

DB 323 °F, WB ____ °F, VF @ DP ____ "Hg

Moisture 10 %, FDA ____, Gas Density Factor ____

Barometric Press 29.76"Hg Stack Press 29.73 "Hg

Weather Cloudy & Warm

Temp. 85 °F, W/D NW, W/S 10

Sample Box No. 1 Meter Box No. 1

Meter AH@ 1.68 Pitot Corr. Factor .85

Nozzle Dia. 1/4 in., Probe Length 10 ft

Probe Heater Setting ____

Stack Dimensions: Inside Diameter 144 in
Inside Area 113.1 ft²
Height ____ ft

Mat'l Processing Rate 70 MW

Final Gas Meter Reading 036.85 ft³

Initial Gas Meter Reading 999.41 ft³

Total Condensate in Impingers 70 ml

Moisture in Silica Gel 10.0 gm

Silica Gel Container No. 2 Filter No. 4 F

Orsat: CO_2 9.0%
O_2 4.0%
CO 0.0%
N_2 87.0%

Excess Air ____

Test Conducted by: A. E. Henderson
F. M. Raggett

Remarks: ____

Port and Traverse Point No.	Distance from Inside of Port (in.)	Clock Time 13:10	Gas Meter Reading (ft^3)	Stack Velocity Head ("H_2O)	Meter Orifice Press. Diff. ("H_2O)		Stack Gas Temp. (°F)	Gas Sample Temp. @ Dry Gas Meter (°F)		Sample Box Temp. (°F)	Last Impinger Test (°F)	Vacuum en Sample Train ("Hg)
					Calc.	Actual		In	Out			
	South	00	999.41									
		03	000.9	.26	.67	.67	350	89	88		.510	
		06	002.6	.38	.98	.98	350	91	89		.616	
		09	004.4	.44	1.15	1.15	350	92	89		.663	
		12	006.2	.44	1.15	1.15	350	94	90		.663	
		15	008.1	.44	1.15	1.15	350	95	91		.663	
		18	009.8	.31	0.80	.80	350	95	91		.557	

Port and Traverse Point No.	Distance from End of Port (in)	Clock Time	Gas Meter Reading (ft^3)	Stack Velocity Head ("H_2O)	Meter Orifice Press.Diff. ("H_2O)		Stack Gas Temp. (^oF)	Gas Sample Temp.@ Dry Gas Meter (^oF)		Sample Box Temp. (^oF)	Last Impinger Temp. (^oF)	Vaccum on Sample Train
					Calc.	Actual		In	Out			
	East	21	10.0	.10	.26	.26	300	95	91		.316	
		24	12.2	.22	.56	.56	300	96	91		.469	
		27	13.6	.27	.70	.70	300	97	92		.520	
		30	15.1	.27	.70	.70	300	98	92		.520	
		33	16.6	.27	.70	.70	300	98	92		.520	
		36	18.2	.27	.70	.70	300	98	93		.520	
	West	39	19.0	.08	.20	.20	345	98	94		.283	
		42	20.3	.20	.50	.50	345	99	94		.447	
		45	21.9	.34	.83	.83	342	100	95		.583	
		48	23.7	.38	.93	.93	343	101	95		.616	
		51	25.4	.42	1.05	1.05	343	101	95		.648	
		54	27.2	.36	.90	.90	340	102	95		.600	
	North	57	28.5	.20	.54	.54	300	98	95			
		60	30.0	.26	.70	.70	300	98	95			
		63	31.6	.30	.82	.82	300	98	95			
		66	33.2	.32	.87	.87	300	99	96			
		69	35.0	.37	.98	.98	300	99	96			
		72	36.85	.38	1.0	1.0	300	99	96			

TECHNICAL SERVICES, INC.
103 Stockton Street
P. O. Box 628
Jacksonville, Fla. 32201

SOURCE SAMPLING CALCULATIONS
PARTICULATE EMISSIONS

PLANT - TECO HOOKERS POINT
STACK - UNIT NO. 6
WEATHER CONDITIONS - CLOUDY
DATE - 6/25/64
RUN J FROM 13:10 - 15:00
AS' - 113.1 SQ. FEET TS - 783 DEGREES R TM - 555 DEGREES R H - 0.542 IN H20
PB - 29.76 IN HG PS- 29.73 IN HG
ΔH - 0.79 IN H20 AN- 0.000341 SQ FT CP - 0.85 VM- 37.44 CF VC - 80 ML
TOTAL TIME - 72 MIN NPTS - 24 ORSAT: CO2 - 9.00 02- 4 CO- 0 N2 87

1.	Volume Water Vapor	1. 3.792	SC
2.	Stack Gas Volume - STPD	2. 35.631	SC
3.	Total Volume	3. 39.423	SC
4.	Moisture in Stack Gas - Volume Fraction	4. 0.096	
5.	Dry Stack Gas - Volume Fraction	5. 0.904	
6.	Assumed Moisture in Stack Gas - Volume Fraction	6. 0.1	
7.	Molecular Weight of Stack Gas - Dry Basis	7. 29.6	
8.	Molecular Weight of Stack Gas - Stack Conditions	8. 28.46	
9.	Specific Gravity of Stack Gas Relative to Air	9. 0.98	
10.	Excess Air - Percent	10. 21	%
11.	Average of Factor ($\sqrt{H} \times TS$)	11. 15.168	
12.	Average Stack Velocity	12. 2270.4	FP
13.	Actual Stack Gas Flow Rate	13. 256788	AC
14.	Actual Stack Gas Flow Rate Dry	14. 232088	CF
15.	Stack Gas Flow Rate - STPD	15. 156099	SC
16.	Percent Isokinetic	16. 105.2	%

MG		GR/SCF	GR/ACF	MG/SCF	MG/ACF	LBS/HR
THIMBLE	- 512.1	0.2213	0.1346	507.48	308.41	296.81
TOTAL	512.1	0.2213	0.1346	507.48	308.41	296.81

Comments: Operating at maximum attainable load of 70 MW
859.4 X 10^6 BTU/hr heat input

Test Conducted By: A. E. Henderson & F. M. Raggett

SOURCE SAMPLING FIELD DATA SHEET

Plant TECO HOOKERS POINT
Sampling Location Unit 6 Stack
Date 6/25/74 Run No. 2
Time Start 1530 Time End 1700
Sampling Time/Point 3 minutes
DB 323 °F, WB ____ °F, VF @ DP ____ "Hg
Moisture 10 %, FDA ____, Gas Density Factor ____
Barometric Press 29.78"HG Stack Press 29.75"HG
Weather Cloudy & Warm
Temp. 85 °F, W/D NW, W/S 10
Sample Box No. 1 Meter Box No. 1
Meter ΔH@ 1.68 Pitot Corr. Factor .85
Nozzle Dia. 1/4 in., Probe Length 10 ft
Probe Heater Setting --
Stack Dimensions: Inside Diameter 144 in
Inside Area 113.1 ft2
Height ____ ft

Mat'l Processing Rate 70 MW
Final Gas Meter Reading 74.52 ft3
Initial Gas Meter Reading 37.72 ft3
Total Condensate in Impingers 66 ml
Moisture in Silica Gel 14 gm
Silica Gel Container No. ____ Filter No. ____
Orsat: CO_2 9.0%
O_2 4.0%
CO --
N_2 87.0%
Excess Air
Test Conducted by: A. E. Henderson
F. M. Raggett

Remarks:

Point and Traverse Point No.	Distance from End of Port (in.)	Clock Time	Gas Meter Reading (ft^3) 1530	Stack Velocity Head ("H_2O)	Meter Orifice Press. Diff. ("H_2O) Calc.	Meter Orifice Press. Diff. ("H_2O) Actual	Stack Gas Temp. (°F)	Gas Sample Temp. @ Dry Gas Meter (°F) In	Gas Sample Temp. @ Dry Gas Meter (°F) Out	Sample Box Temp. (°F)	Last Impinger Test (°F)	Vacuum on Sample Train ("Hg)
		00	37.72									
North		03	39.0	.15	.41	.41	300	94	92			
		06	40.4	.25	.68	.68	300	94	93			
		09	41.9	.30	.80	.80	300	95	93			
		12	43.5	.30	.80	.80	300	95	93			
		15	45.2	.33	.90	.90	300	96	94			
		18	47.1	.38	1.05	1.05	300	97	94			

Port and Traverse Point No.	Distance from End of Port (in)	Clock Time	Gas Meter Reading (ft^3)	Stack Velocity Head ($"H_2O$)	Meter Orifice Press.Diff. ($"H_2O$)		Stack Gas Temp. (^oF)	Gas Sample Temp.@ Dry Gas Meter (^oF)		Sample Box Temp. (^oF)	Last Impinger Temp. (^oF)	Vaccum on Sample Train
					Calc.	Actual		In	Out			
West		21	48.0	.10	.25	.25	340	96	94			
		24	49.3	.20	.50	.50	340	96	94			
		27	50.9	.32	.80	.80	340	96	94			
		30	52.7	.40	1.0	1.0	340	97	94			
		33	54.5	.42	1.05	1.05	340	97	94			
		36	56.2	.36	.92	.92	340	97	94			
South		39	57.5	.17	.43	.43	350	96	94			
		42	59.1	.36	.92	.92	350	96	94			
		45	61.0	.42	1.05	1.05	350	97	94			
		48	62.8	.44	1.10	1.10	350	97	94			
		51	64.8	.44	1.10	1.10	350	97	94			
		54	66.4	.30	.75	.75	350	97	94			
East		57	67.2	.10	.26	.26	300	96	94			
		60	68.7	.20	.53	.53	300	96	94			
		63	70.2	.26	.67	.67	300	96	94			
		66	71.7	.26	.67	.67	300	97	94			
		69	73.1	.23	.61	.61	300	97	94			
		72	74.52	.25	.65	.65	300	97	94			

THORNTON LABORATORIES, INC.
ANALYTICAL AND CONSULTING CHEMISTS
1145 EAST CASS STREET
TAMPA, FLORIDA 33601

CHARLES C. THORNTON, PRESIDENT
K. KHAJEH-NOORI, VICE-PRES.

TELEPHONE 229-2641
AREA CODE 813
P. O. BOX 2860

July 23, 1974

Laboratory Mark 453488

Sample of Fuel Oil

Date Received July 10, 1974

For Tampa Electric Company
P. O. Box 111
Marks: Tampa, Florida

#6 Boiler 2:00 P.M. 6/25/74
P. O. #96473

CERTIFICATE OF ANALYSIS

Flash Point, Cleveland Open Cup	142°F
Fire Point, Cleveland Open Cup	244°F
Saybolt Furol Viscosity @ 122°F	59.2 sec.
Sediment by extraction	0.04%
Water by distillation	0.30%
Sulfur	1.77%
A.P.I. Gravity @ 60°F	17.2
Weight per Gallon, lbs	7.925
B.T.U. per pound	18,509
B.T.U. per gallon	146,684
B.T.U. per barrel	6,160,721
Specific Gravity @ 60°F	0.9513
Vanadium	150 ppm
Ash	0.06%

Tampa Electric Company
Invoice Auditing Dept.

THORNTON LABORATORIES, INC.

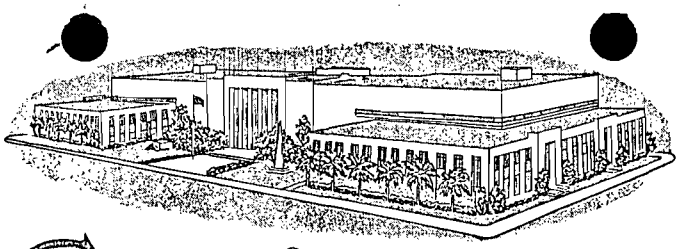
Kamran Noori

SOURCE EMISSION TEST DATA

Test Number -
Plant Name -
Source Tested -
Type of Plant -
Control Equipment -
Pollutant Sampled -

		1	2
1.	Run Number		
2.	Date	6/25/74	6/25/74
3.	Time Began	13:10	15:30
4.	Time End	15:00	17:00
5.	T - Net Time of Test, Minutes	72	72
6.	PB - Barometric Pressure, Inches Hg	29.76	29.78
7.	PS - Stack Pressure, Inches Hg	29.73	29.75
8.	Δ H - Gas Meter Orifice Pressure Drop, Inches H_2O	0.70	0.75
9.	$\overline{TM}$ - Gas Meter Average Temperature, ^oF	95	95
10.	$\overline{VC}$ - Total H_2O Collected, ml	80	70
11.	VWV - Volume H_2O Vapor Collected, cubic ft., STP	3.79	3.32
12.	VM - Volume Dry Gas Sampled, cu. ft., Meter Cond.	37.44	36.3
13.	VSTPD - Volume Dry Gas Sampled, cu. ft, STP	35.631	35.042
14.	W(PCT) - Stack Gas Moisture, PCT Volume	9.6	8.6
15.	$\overline{TS}$ - Average Stack Gas Temperature, ^oF	323	322.5
16.	$\overline{CO_2}$ - Stack Gas CO_2, PCT Volume	9	9
17.	O_2 - Stack Gas O_2, PCT Volume	4	4
18.	CO - Stack Gas CO, PCT Volume	0	0
19.	N_2 - Stack Gas N_2, PCT Volume	87	87
20.	EA - Stack Gas Excess Air, PCT Volume	21.	21.
21.	MD - Stack Gas Molecular Weight, Dry	29.6	29.6
22.	MS - Stack Gas Molecular Weight, Stack Cond.	28.48	28.6
23.	GS - Stack Gas Specific Gravity, Ref Air	0.98	0.99
24.	H - Average Square Root Velocity Head, Inches H_2O	0.542	0.528
25.	Average Square Root (Stk Temp x Vel Head)	15.180	14.78
26.	CP - Pitot Tube Correction Factor	0.85	0.85
27.	U - Stack Gas Velocity, Feet/Minute	2270.4	2207.3
28.	AS - Stack Area, Square Feet	113.1	113.1
29.	AS' - Effective Stack Area, Square Feet	113.1	113.1
30.	QS - Stack Gas Flow Rate, cu.ft/min., Stk Cond.	256760	249840
31.	QSTPD - Stack Gas Flow Rate, cu.ft./min. STP	156033	155333
32.	DN - Sampling Nozzle Diameter, inches	0.25	0.25
33.	AN - Sampling Nozzle Area, Square Feet	0.00034	0.00034
34.	PCT ISO - Isokinetic Sampling, Percent	103.2	100.1

*** STP - Dry, 70 Degrees F, 29.92 Inches Hg



COUNTY of HILLSBOROUGH
Tampa, Florida 33601

ENVIRONMENTAL PROTECTION COMMISSION
305 NORTH MORGAN STREET
TAMPA, FLORIDA 33602

ROGER P. STEWART
DIRECTOR

November 5, 1974

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

Re: Stack Test Results
Submitted on 10/10/74 for
Gannon Unit 6, Big Bend Unit 1 and
Hooker's Point Units 5 and 6.

Dear Mr. Kaiser:

The referenced stack tested results have indicated Hooker's Point Unit # 6 to be emitting particulate matter in excess of 5 times that of the allowable. It was mentioned that the Hooker's Point facility had begun burning a cleaner lower sulfur fuel but to date no substantiating data has been submitted to this office.

Until this data is received verifying the Hooker's Point facility to be in compliance with all State and Local regulations, we will continue to report this facility to be out of compliance with final emission requirements.

Please take appropriate action on or before December 1, 1974.

Sincerely,

Bennie J. Caramella
Environmental Engineer
Hillsborough County Environmental
Protection Commission

BJC/fd

TECHNICAL SERVICES, INC.
103 Stockton Street
P. O. Box 628
Jacksonville, Fla. 32201

SOURCE SAMPLING CALCULATIONS
PARTICULATE EMISSIONS

PLANT - TECO HOOKERS POINT
STACK - UNIT NO. 6
WEATHER CONDITIONS - CLOUDY
DATE - 6/25/64
RUN J FROM 13:10 - 15:00
AS' - 113.1 SQ. FEET TS - 783 DEGREES R TM - 555 DEGREES R H - 0.542 IN H2O
PB - 29.76 IN HG PS- 29.73 IN HG
ΔH - 0.79 IN H2O AN- 0.000341 SQ FT CP - 0.85 VM- 37.44 CF VC - 80 ML
TOTAL TIME - 72 MIN NPTS - 24 ORSAT: CO2 - 9.00 02- 4 CO- 0 N2 87

1.	Volume Water Vapor	1. 3.792	SC
2.	Stack Gas Volume - STPD	2. 35.631	SC
3.	Total Volume	3. 39.423	SC
4.	Moisture in Stack Gas - Volume Fraction	4. 0.096	
5.	Dry Stack Gas - Volume Fraction	5. 0.904	
6.	Assumed Moisture in Stack Gas - Volume Fraction	6. 0.1	
7.	Molecular Weight of Stack Gas - Dry Basis	7. 29.6	
8.	Molecular Weight of Stack Gas - Stack Conditions	8. 28.46	
9.	Specific Gravity of Stack Gas Relative to Air	9. 0.98	
10.	Excess Air - Percent	10. 21	%
11.	Average of Factor ($\sqrt{H}$ x TS)	11. 15.168	
12.	Average Stack Velocity	12. 2270.4	FT
13.	Actual Stack Gas Flow Rate	13. 256788	AC
14.	Actual Stack Gas Flow Rate Dry	14. 232088	CF
15.	Stack Gas Flow Rate - STPD	15. 156099	SC
16.	Percent Isokinetic	16. 105.2	%

	MG	GR/SCF	GR/ACF	MG/SCF	MG/ACF	LBS/HR
THIMBLE	- 512.1	0.2213	0.1346	507.48	308.41	296.81
TOTAL	512.1	0.2213	0.1346	507.48	308.41	296.81

Comments: Operating at maximum attainable load of 70 MW
859.4 X 10^6 BTU/hr heat input

Test Conducted By: A. E. Henderson & F. M. Raggett

SOURCE SAMPLING FIELD DATA SHEET

Plant TECO HOOKERS POINT

Sampling Location Unit 6 Stack

Date 6/25/74 Run No. 2

Time Start 1530 Time End 1700

Sampling Time/Point 3 minutes

DB 323 °F, WB ____ °F, VF @ DP ____ "Hg

Moisture 10 %, FDA ____, Gas Density Factor ____

Barometric Press 29.78"HG Stack Press 29.75"HG

Weather Cloudy & Warm

Temp. 85 °F, W/D NW, W/S 10

Sample Box No. 1 Meter Box No. 1

Meter ΔH@ 1.68 Pitot Corr. Factor .85

Nozzle Dia. 1/4 in., Probe Length 10 ft

Probe Heater Setting --

Stack Dimensions: Inside Diameter 144 in
Inside Area 113.1 ft²
Height ____ ft

Mat'l Processing Rate 70 MW

Final Gas Meter Reading 74.52 ft³

Initial Gas Meter Reading 37.72 ft³

Total Condensate in Impingers 66 ml

Moisture in Silica Gel 14 gm

Silica Gel Container No. ____ Filter No. ____

Orsat: CO_2 9.0%
O_2 4.0%
CO --
N_2 87.0%
Excess Air ____

Test Conducted by: A. E. Henderson
F. M. Raggett

Remarks: ____

Port and Traverse Point No.	Distance from End of Port (in.)	Clock Time	Gas Meter Reading (ft^3) 1530	Stack Velocity Head ("H_2O)	Meter Orifice Press. Diff. ("H_2O) Calc.	Meter Orifice Press. Diff. ("H_2O) Actual	Stack Gas Temp. (°F)	Gas Sample Temp. @ Dry Gas Meter (°F) In	Gas Sample Temp. @ Dry Gas Meter (°F) Out	Sample Box Temp. (°F)	Last Impinger Test (°F)	Vacuum on Sample Train ("Hg)
		00	37.72									
North		03	39.0	.15	.41	.41	300	94	92			
		06	40.4	.25	.68	.68	300	94	93			
		09	41.9	.30	.80	.80	300	95	93			
		12	43.5	.30	.80	.80	300	95	93			
		15	45.2	.33	.90	.90	300	96	94			
		18	47.1	.38	1.05	1.05	300	97	94			

Port and Traverse Point No.	Distance from End of Port (in)	Clock Time	Gas Meter Reading (ft^3)	Stack Velocity Head ("H_2O)	Meter Orifice Press.Diff. ("H_2O)		Stack Gas Temp. (^oF)	Gas Sample Temp.@ Dry Gas Meter (^oF)		Sample Box Temp. (^oF)	Last Impinger Temp. (^oF)	Vaccum on Sample Train
					Calc.	Actual		In	Out			
West		21	48.0	.10	.25	.25	340	96	94			
		24	49.3	.20	.50	.50	340	96	94			
		27	50.9	.32	.80	.80	340	96	94			
		30	52.7	.40	1.0	1.0	340	97	94			
		33	54.5	.42	1.05	1.05	340	97	94			
		36	56.2	.36	.92	.92	340	97	94			
South		39	57.5	.17	.43	.43	350	96	94			
		42	59.1	.36	.92	.92	350	96	94			
		45	61.0	.42	1.05	1.05	350	97	94			
		48	62.8	.44	1.10	1.10	350	97	94			
		51	64.8	.44	1.10	1.10	350	97	94			
		54	66.4	.30	.75	.75	350	97	94			
East		57	67.2	.10	.26	.26	300	96	94			
		60	68.7	.20	.53	.53	300	96	94			
		63	70.2	.26	.67	.67	300	96	94			
		66	71.7	.26	.67	.67	300	97	94			
		69	73.1	.23	.61	.61	300	97	94			
		72	74.52	.25	.65	.65	300	97	94			

BEST AVAILABLE COPY

SOURCE EMISSION TEST DATA

Test Number -
Plant Name -
Source Tested -
Type of Plant -
Control Equipment -
Pollutant Sampled -

1.	Run Number	1	2	
2.	Date	[illegible]	[illegible]	
3.	Time Began	[illegible]	[illegible]	
4.	Time End	15:00	[illegible]	
5.	T - Net Time of Test, Minutes	72	[illegible]	
6.	PB - Barometric Pressure, Inches Hg	[illegible]	[illegible]	
7.	PS - Stack Pressure, Inches Hg	[illegible]	[illegible]	
8.	ΔH - Gas Meter Orifice Pressure Drop, Inches H_2O	[illegible]	[illegible]	
9.	TM - Gas Meter Average Temperature, °F	[illegible]	[illegible]	
10.	VC - Total H_2O Collected, ml	[illegible]	[illegible]	
11.	VWV - Volume H_2O Vapor Collected, cubic ft., STP	[illegible]	[illegible]	
12.	VM - Volume Dry Gas Sampled, cu. ft., Meter Cond.	[illegible]	[illegible]	
13.	VSTPD - Volume Dry Gas Sampled, cu. ft, STP	35.631	[illegible]	
14.	W(PCT) - Stack Gas Moisture, PCT Volume	[illegible]	[illegible]	
15.	TS - Average Stack Gas Temperature, °F	328	[illegible]	
16.	CO_2 - Stack Gas CO_2, PCT Volume	9	[illegible]	
17.	O_2 - Stack Gas O_2, PCT Volume	[illegible]	[illegible]	
18.	CO - Stack Gas CO, PCT Volume	0	0	
19.	N_2 - Stack Gas N_2, PCT Volume	87	[illegible]	
20.	EA - Stack Gas Excess Air, PCT Volume	[illegible]	[illegible]	
21.	MD - Stack Gas Molecular Weight, Dry	[illegible]	[illegible]	
22.	MS - Stack Gas Molecular Weight, Stack Cond.	[illegible]	[illegible]	
23.	GS - Stack Gas Specific Gravity, Ref Air	[illegible]	[illegible]	
24.	H - Average Square Root Velocity Head, Inches H_2O	[illegible]	[illegible]	
25.	Average Square Root (Stk Temp x Vel Head)	[illegible]	[illegible]	
26.	CP - Pitot Tube Correction Factor	[illegible]	[illegible]	
27.	U - Stack Gas Velocity, Feet/Minute	[illegible]	[illegible]	
28.	AS - Stack Area, Square Feet	[illegible]	[illegible]	
29.	AS' - Effective Stack Area, Square Feet	[illegible]	[illegible]	
30.	QS - Stack Gas Flow Rate, cu.ft/min., Stk Cond.	[illegible]	[illegible]	
31.	QSTPD - Stack Gas Flow Rate, cu.ft./min. STP	[illegible]	[illegible]	
32.	DN - Sampling Nozzle Diameter, inches	[illegible]	[illegible]	
33.	AN - Sampling Nozzle Area, Square Feet	[illegible]	[illegible]	
34.	PCT ISO - Isokinetic Sampling, Percent	[illegible]	[illegible]	

*** STP - Dry, 70 Degrees F, 29.92 Inches Hg

TECHNICAL SERVICES, INC.
103 Stockton Street
P. O. Box 628
Jacksonville, Fla. 32201

SOURCE SAMPLING CALCULATIONS
PARTICULATE EMISSIONS

PLANT-TECO HOOKERS POINT — DATE -6/25/74
STACK - UNIT NO. 6 — RUN 2 FROM 15:30-17:00
WEATHER CONDITIONS - CLOUDY — PB- 29.78 IN HG — PS - 29.75 IN HG
AS' - 113.1 SQ. FEET — TS - 782.5 DEGREES R — TM - 555 DEGREES R — H - 0.528 IN H2O
ΔH - 0.75 ON H2O — AN -0.000341 SQ. FT — CP- 0.85 — VM - 36.8 CF — VC - 70 ML
TOTAL TIME - 72 MIN. — NPTS - 24 — ORSAT: CO2 - 9.00 — 02 - 4 — CO - 0 — N2- 87

1.	Volume Water Vapor	1. 3.318	SC
2.	Stack Gas Volume - STPD	2. 35.042	SC
3.	Total Volume	3. 38.36	SC
4.	Moisture in Stack Gas - Volume Fraction	4. 0.086	
5.	Dry Stack Gas - Volume Fraction	5. 0.914	
6.	Assumed Moisture in Stack Gas - Volume Fraction	6. 0.1	
7.	Molecular Weight of Stack Gas - Dry Basis	7. 29.6	
8.	Molecular Weight of Stack Gas - Stack Conditions	8. 28.6	
9.	Specific Gravity of Stack Gas Relative to Air	9. 0.99	
10.	Excess Air - Percent	10. 21.	%
11.	Average of Factor ($\sqrt{H} \times TS$)	11. 14.78	
12.	Average Stack Velocity	12. 2207.3	FP
13.	Actual Stack Gas Flow Rate	13. 249640	AC
14.	Actual Stack Gas Flow Rate Dry	14. 228048	CF
15.	Stack Gas Flow Rate - STPD	15. 153583	SC
16.	Percent Isokinetic	16. 105.1	%

	MG	GR/SCF	GR/ACF	MG/SCF	MG/ACF	LBS/HR
THIMBLE	772.7	0.3395	0.2090	778.50	478.81	447.99
TOTAL	772.6	0.3395	0.2090	778.50	478.81	447.99

Comments: Operating at maximum attainable load of 70 MW
859.4 X 10^6 BTU/hr heat input

Test Conducted By: A. E. Henderson & F. M. Raggett

SOURCE SAMPLING FIELD DATA SHEET

Plant TECO BOOKER POINT

Sampling Location Unit 6 Stack

Date 6/25/74 Run No. 1

Time Start 1310 Time End 1500

Sampling Time/Point 3 min.

DB 323 °F, WB ____ °F, VF @ DP ____ "Hg

Moisture 10 %, FDA ____, Gas Density Factor ____

Barometric Press 29.76 "Hg Stack Press 29.73 "Hg

Weather Cloudy & Warm

Temp. 85 °F, W/D NW, W/S 10

Sample Box No. 1 Meter Box No. 1

Meter ΔH@ 1.68 Pitot Corr. Factor .85

Nozzle Dia. 1/4 in., Probe Length 10 ft

Probe Heater Setting ____

Stack Dimensions: Inside Diameter 144 in
Inside Area 113.1 ft²
Height ____ ft

Mat'l Processing Rate 70 MW

Final Gas Meter Reading 036.85 ft³

Initial Gas Meter Reading 999.41 ft³

Total Condensate in Impingers 70 ml

Moisture in Silica Gel 10.0 gm

Silica Gel Container No. 2 Filter No. 4 F

Orsat: CO_2 9.0%
O_2 4.0%
CO 0.0%
N_2 87.0%
Excess Air ____

Test Conducted by: A. E. Henderson
F. M. Raggett

Remarks: ____

Port and Traverse Point No.	Distance From End of Port (in.)	Clock Time 13:10	Gas Meter Reading (ft^3)	Stack Velocity Head ("H_2O)	Meter Orifice Press. Diff. ("H_2O)		Stack Gas Temp. (°F)	Gas Sample Temp. @ Dry Gas Meter (°F)		Sample Box Temp. (°F)	Last Impinger Test (°F)	Vacuum on Sample Train ("Hg)
					Calc.	Actual		In	Out			
	South	00	999.41									
		03	000.9	.26	.67	.67	350	89	88		.510	
		06	002.6	.38	.98	.98	350	91	89		.616	
		09	004.4	.44	1.15	1.15	350	92	89		.663	
		12	006.2	.44	1.15	1.15	350	94	90		.663	
		15	008.1	.44	1.15	1.15	350	95	91		.663	
		18	009.8	.31	0.80	.80	350	95	91		.557	

Port and Traverse Point No.	Distance from End of Port (in)	Clock Time	Gas Meter Reading (ft^3)	Stack Velocity Head ("H_2O)	Meter Orifice Press.Diff. ("H_2O)		Stack Gas Temp. (^oF)	Gas Sample Temp.@ Dry Gas Meter (^oF)		Sample Box Temp. (^oF)	Last Impinger Temp. (^oF)	Vaccum on Sample Train
					Calc.	Actual		In	Out			
	East	21	10.0	.10	.26	.26	300	95	91		.316	
		24	12.2	.22	.56	.56	300	96	91		.469	
		27	13.6	.27	.70	.70	300	97	92		.520	
		30	15.1	.27	.70	.70	300	98	92		.520	
		33	16.6	.27	.70	.70	300	98	92		.520	
		36	18.2	.27	.70	.70	300	98	93		.520	
	West	39	19.0	.08	.20	.20	345	98	94		.283	
		42	20.3	.20	.50	.50	345	99	94		.447	
		45	21.9	.34	.83	.83	342	100	95		.583	
		48	23.7	.38	.93	.93	343	101	95		.616	
		51	25.4	.42	1.05	1.05	343	101	95		.648	
		54	27.2	.36	.90	.90	340	102	95		.600	
	North	57	28.5	.20	.54	.54	300	98	95			
		60	30.0	.26	.70	.70	300	98	95			
		63	31.6	.30	.82	.82	300	98	95			
		66	33.2	.32	.87	.87	300	99	96			
		69	35.0	.37	.98	.98	300	99	96			
		72	36.85	.38	1.0	1.0	300	99	96			

November 30, 1973

Unit No 6
Gannon

Mr. Roger P. Stewart, Director
Hillsborough County Environmental
Protection Commission
906 Jackson Street
Tampa, Florida 33602

RE: Compliance Schedule, Tampa Electric Company
Common Station Unit No. 6
Particulate Control
Permit No. AO29-2161

Dear Mr. Stewart:

The fourth increment of progress (construction completion) for complying the particulate removal equipment on Unit No. 6 Gannon Station is presently set for November 30, 1973. Due to construction delays and the inability to remove this unit from service and still maintain a reliable electric supply, we have been unable to make the final tie-in between the new precipitator (which is essentially complete) and the boiler.

We now plan to remove this unit from service on December 7, 1973 to make the final tie-in. This interval will last approximately twelve weeks, with the new precipitator being operational when the boiler comes back on-line.

In light of this, we would respectfully request that the date of the fourth increment of progress be moved to March 1, 1974. We anticipate that this schedule will still allow the previous final compliance date of May 30, 1974 to be met.

If you have any questions, please don't hesitate to contact us.

Very truly yours,

Alex Fraser

Alex Fraser, Director
Power Plant Engineering &
Environmental Planning

cc: Mr. R. E. Lane
Regional Administrator
Florida Department of Pollution Control

bcc: Mr. J. D. Hicks
Mr. R. D. Welch
Mr. H. A. Moshell, Jr.
Mr. A. D. Jones