

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF FINAL PERMIT

In the Matter of an  
Application for Permit

Ms. Laura Crouch, Manager – Air Programs  
Tampa Electric Company  
Post Office Box 111  
Tampa, Florida 33601-0111

Permit: 0570038-004-AC

Enclosed is the FINAL Permit, which allows continued operation of the 30 (thirty) Internal Combustion Engines, each, rated at 1.825 MW nominal at Hookers Point Station in Hillsborough County. This permit is issued pursuant to Chapter 403, Florida Statutes and 62-4 through 297, F.A.C.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., 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 Legal Office; 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 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.



A. A. Linero, P.E.  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 10/7/02 to the person(s) listed:

Ms. Laura Crouch, TEC\*  
Mr. Jerry Kissel, DEP SWD  
Mr. Jerry Campbell, EPCHC

Clerk Stamp

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

 October 7, 2002  
(Clerk) (Date)

**SENDER: COMPLETE THIS SECTION**

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Laura Crouch  
 Manager - Air Programs  
 Tampa Electric Company  
 P. O. Box 111  
 Tampa, FL 33601-0111

**COMPLETE THIS SECTION ON DELIVERY**A. Received by (Please Print Clearly) *JC CHAVEZ* B. Date of Delivery *10/10*C. Signature *Jay*
☐ Agent  
☐ Addressee
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If YES, enter delivery address below: ☐ No

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☐ Registered ☐ Return Receipt for Merchandise  
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2 7001 0320 0001 3692 7898

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-0952

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Tampa, FL 33601-0111

PS Form 3800, January 2001

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## **FINAL DETERMINATION**

### **Tampa Electric Company Hookers Point Station DEP File Number 0570038-004-AC**

An Intent to Issue an Air Construction Permit Modification to Tampa Electric Company Hookers Point Station, located at 1700 Hemlock Street, Tampa, Hillsborough County, Florida, was distributed on August 15, 2002. The Public Notice of Intent to Issue Air Construction Permit Modification was published in the Tampa Tribune on August 21, 2002. Copies of the draft air construction permit were available for public inspection at the Department offices in Tampa and Tallahassee.

The Environmental Protection Commission of Hillsborough County (EPCHC) submitted comments regarding periodic monitoring and testing requirements for the thirty (30) Internal Combustion Engines. Their comments and Department's responses are as follows:

#### EPCHC Comment 1

Rule 62-4.160(6) and (8) states, "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, 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." And "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 the 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 maybe subject to enforcement action by the Department for penalties or for revocation of this permit."

Historically, facilities are only required to periodically demonstrate compliance with the standards and rules by conducting annual stack tests, maintaining daily or monthly records, etc. However, the rules require continuous compliance. Therefore, TEC needs to provide information as to how they plan to demonstrate continuous compliance with the NO<sub>x</sub> and opacity limits for the IC Diesel Generators pursuant to Rule 62-213.440(1)(b)1.b., F.A.C.

The draft construction permit requires less than annual testing. Since the combustion temperature and exhaust gas temperature affect the level of NO<sub>x</sub> emissions, EPC staff recommends that TEC should consider monitoring the temperature of the exhaust gasses from the IC Diesel Generators in addition to annual testing and fuel recordkeeping in order to ensure continuous compliance with the NO<sub>x</sub> limits. Additionally, EPC Staff recommends TEC personnel be required to perform daily instantaneous visible emissions observations in order to meet the requirements of periodic monitoring for the IC diesel generators.

#### Department's Response

Tampa Electric Company (TEC) has agreed in doing periodic monitoring of the manifold exhaust temperature of each operating engine. Additionally, for visible emissions, on a weekly basis TEC proposes using EPA Reference Method 9 to evaluate visible emissions on a maximum of six (6) IC engines on a day during the week when the units are operating. The number of IC engines monitored each week will depend on the number of engines in operation. To the extent possible, TEC will monitor different engines each week with the objective of periodically monitoring visible emissions of all 30 IC engines.

The Department will add two new specific conditions requiring TEC to comply with the periodic monitoring request from EPCHC. The two additional conditions are as follows:

32. Temperature Periodic Monitoring: The permittee on a weekly basis shall monitor and record the manifold exhaust temperature of each internal combustion engine that is operating on that day. The permittee will monitor the engines each week with the objective of periodically monitoring the manifold exhaust temperature of all thirty (30) internal combustion engines. Upon the occurrence of an abnormal temperature reading, the engine will be shut down and investigated. The incident time, date, cause and corrective action will be recorded. **[Applicant Request]**

33. Visible Emissions (VE) Periodic Monitoring: The permittee on a weekly basis shall evaluate VE using EPA reference Method 9 on a maximum of six (6) internal combustion engines that are operating on that day. The number of engines monitored each week will depend on the number of engines that are operating. The permittee will monitor different engines each week with the objective of periodically monitoring VE of all 30 engines. If the VE from the 30 engines are consistently ten (10) percent opacity or less during a quarter, then the frequency of VE monitoring can be reduced to once per month for 6 engines. The frequency of VE monitoring will revert to a weekly schedule in the event monitored VE exceed 10 percent opacity for any engine. **[Applicant Request]**

### EPCHC Comment 2

EPC staff noted the permit requires annual tests only for those generators that operate more than 3700 hours per year. EPC staff recommends the modification of the testing requirements to require the testing of at least six (6) different IC generators per year to ensure that all thirty (30) emissions units are tested prior to permit renewal in accordance with Rule 62-297.310(7)(a)3., F.A.C. In addition, Rule 62-297.310(7)(a)3., F.A.C. does allow for the exemption of those emissions units (generators) which operates less than 400 hrs/yr not 3700 hrs/yr.

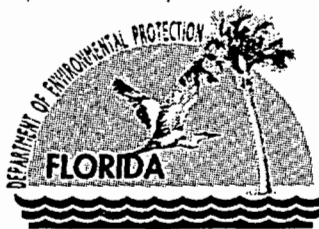
### Department's Response

This requirement was based on the Rule 62-297.310(7)(a)4. The rule states that the facility shall conduct a formal annual compliance test on each emissions unit if it emits more than 100 tpy of NOx. The 3,700 hours equates to 100 tons of NOx emissions. Annual compliance testing will be done on each engine that operates for more than 3,700 hours between October 1 and September 30 of each year.

TEC has agreed to test six (6) engines each year for initial performance testing instead of the five (5) engines as required in the original construction permit. TEC has conducted initial performance test on 10 engines prior to this modification, so the Department will require six engines tested for the first three years and two engines in the fourth year to complete the initial testing on the remaining 20 engines. Specific Condition 20 of the permit will be changed as follows:

20. Initial Tests Required: Initial performance tests to demonstrate compliance with the emission standards specified in this permit shall be conducted within 60 days after achieving at least 90% of permitted capacity, but not later than 180 days after initial operation of the emissions unit. Initial performance tests shall be conducted for NOx and visible emissions on a sample of 5 (five) randomly picked internal combustion engines for the first and second year. A different set of randomly picked ~~five~~ six engines from the remaining ~~25 (twenty-five)~~ internal combustion engines will be tested during ~~the second year of operation~~ subsequent years of operation until all of the engines have completed the initial performance test. [Rule 62-297.310(7)(a)1., and 62-297.310(7)(c), F.A.C.]

The final action of the Department is to issue the permit with the changes noted above.



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

## PERMITTEE:

Tampa Electric Company  
Hookers Point Station  
1700 Hemlock Street  
Tampa, Florida 33605-6660

*Authorized Representative:*  
Ms. Laura R. Crouch  
Manager – Air Program

**ARMS Permit No.** 0570038-004-AC

**Facility ID No.** 0570038

**SIC No.** 4911

**Expires:** February 1, 2003

## PROJECT AND LOCATION

This air construction permit describes the existing facility that was approved in April 2001 and its current modifications of allowing the thirty diesel engines to operate permanently and the permanent shutdown of Boilers 1-6. The diesel engine emissions unit number will be changed to 008-037.

The units are located in Hillsborough County at 1700 Hemlock Street, Tampa. The UTM coordinates are Zone 17, 358 km E, 3091 km N.

## STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

## APPENDICES

The following Appendices are attached as part of this permit.

0570038-002-AC Original Air Construction Permit  
Appendix GC Construction Permit General Conditions

Howard L. Rhodes, Director  
Division of Air Resources Management

"More Protection, Less Process"

Printed on recycled paper.

## ADMINISTRATIVE REQUIREMENTS

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### FACILITY DESCRIPTION

The existing facility consists of six oil-fired steam boilers (Units Nos. 1 through 6) and thirty internal combustion diesel engines at the Hookers Point Station located at 1700 Hemlock Street, Tampa, Hillsborough County. All the boilers are fired using No. 6 fuel oil and the diesel engines are fired with 0.05 percent diesel fuel oil. The boilers may also fire a limited quantity of on-specification used oil. The total generating capacity at this facility is 227 megawatts. Also located at this facility are miscellaneous unregulated/insignificant emissions units and/or activities. The thirty internal combustion engines with generators are capable of providing a nominal 54.75 MW of electrical power.

### REGULATORY CLASSIFICATION

Acid Rain: This facility is subject to the acid rain provisions of the Clean Air Act (Title IV).

Title V Major Source: This facility is a Title V major source of air pollution.

PSD Major Source: Each pollutant with potential emissions greater than the Significant Emissions Rates specified in Table 62-212.400-2, F.A.C. requires a PSD review and Best Available Control Technology (BACT) determination. For this project, emissions of no pollutant are significant or subject to BACT standards, provided that the Emission Unit is operated as specified in this permit. However, the existing facility is classified as a PSD Major Source.

### PERMIT SCHEDULE

- 04-01-02: Date of Receipt of Permit Application
- 07-02-02: Application deemed complete
- 08-15-02: Intent issued
- 08-21-02: Notice published in the Tampa Tribune

### RELEVANT DOCUMENTS

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Application received 4-01-02
- Department letter dated 5-02-02
- Company letter receive date 7-02-02
- Intent issue date 8-15-02

**APPENDIX SC**  
**SPECIFIC CONDITIONS**

1. This permit, 0570038-004-AC, supersedes original permit 0570038-002-AC issued on April 20, 2001.
2. The provisions of air construction permit 0570038-002-AC are attached and incorporated into this air construction permit except for the following changes:

**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

This permit addresses the following emissions units.

<b>EU ID No.</b>	<b>EMISSIONS UNIT DESCRIPTION</b>
001 – 006 <sup>#</sup>	Six boilers that are fired using No. 6 fuel oil.
008– 037 <sup>*</sup>	30 Caterpillar XQ2000 Power Modules. Each Power Module consists of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power rating of 2,593 brake horsepower (bhp) at 100 percent load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100 percent load. The IC engines will be fired exclusively with low-sulfur (maximum of 0.05 weight percent sulfur) diesel fuel oil.

# Existing Emission units

\* New Emission units

12. Fuel Oil Consumption: The maximum No. 2 fuel oil allowed to be burned in thirty internal combustion engines combined is 2,828,800 gallons per year, which is equivalent to 22,100 engine-hours per year at 100% load. **[Rule 62-210.200, F.A.C. (Definitions – PTE)]**
15. Operational Period: The thirty internal combustion engines can operate beyond June 2003. **[Applicant Request]**
20. Initial Tests Required: Initial performance tests to demonstrate compliance with the emission standards specified in this permit shall be conducted within 60 days after achieving at least 90% of permitted capacity, but not later than 180 days after initial operation of the emissions unit. Initial performance tests shall be conducted for NO<sub>x</sub> and visible emissions on a sample of 5 (five) randomly picked internal combustion engines for the first and second year. A different set of randomly picked six engines from the remaining internal combustion engines will be tested during subsequent years of operation until all of the engines have completed the initial performance test. **[Rule 62-297.310(7)(a)1., and 62-297.310(7)(c), F.A.C.]**
32. Temperature Periodic Monitoring: The permittee on a weekly basis shall monitor and record the manifold exhaust temperature of each internal combustion engine that is operating on that day. The permittee will monitor the engines each week with the objective of periodically monitoring the manifold exhaust temperature of all thirty (30) internal combustion engines. Upon the occurrence of an abnormal temperature reading, the engine will be shut down and investigated. The incident time, date, cause and corrective action will be recorded. **[Applicant Request]**
33. Visible Emissions (VE) Periodic Monitoring: The permittee on a weekly basis shall evaluate VE using EPA reference Method 9 on a maximum of six (6) internal combustion engines that are



**APPENDIX SC**  
**SPECIFIC CONDITIONS**

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operating on that day. The number of engines monitored each week will depend on the number of engines that are operating. The permittee will monitor different engines each week with the objective of periodically monitoring VE of all 30 engines. If the VE from the 30 engines are consistently ten (10) percent opacity or less during a quarter, then the frequency of VE monitoring can be reduced to once per month for 6 engines. The frequency of VE monitoring will revert to a weekly schedule in the event monitored VE exceed 10 percent opacity for any engine. **[Applicant Request]**

**The following Specific Conditions apply to the existing emission units 001-006:**

4. The existing emission units shall be permanently retired as of January 1, 2003. **[Applicant Request]**



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

## PERMITTEE:

Tampa Electric Company  
Hookers Point Station  
1700 Hemlock Street  
Tampa, Florida 33605-6660

ARMS Permit No. 0570038-002-AC

Facility ID No. 0570038

SIC No. 4911

Expires: December 1, 2001

## Authorized Representative:

Mr. Darryl Scott  
General Manager

## PROJECT AND LOCATION

The proposed project authorizes the installation of thirty internal combustion engines with electrical generator sets. The thirty engines are capable of producing a nominal 54.75 MW of electricity.

The project will be located in Hillsborough County at 1700 Hemlock Street, Tampa. The UTM coordinates are Zone 17, 358 km E, 3091 km N.

## STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

## APPENDICES

The following Appendices are attached as part of this permit.

Appendix GC - Construction Permit General Conditions

Howard L. Rhodes, Director  
Division of Air Resources Management

## SECTION II. ADMINISTRATIVE REQUIREMENTS

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### FACILITY DESCRIPTION

The existing facility consists of six oil-fired steam boilers (Units Nos. 1 through 6) at the Hookers Point Station located at 1700 Hemlock Street, Tampa, Hillsborough County. All the boilers are fired using No. 6 fuel oil. The boilers may also fire a limited quantity of on-specification used oil. The total generating capacity at this facility is 227 megawatts. Also located at this facility are miscellaneous unregulated/insignificant emissions units and/or activities. Title V Final Permit No. 0570038-001-AV currently authorizes operation of the existing steam boilers. Final Title V Permit was issued with an effective date of January 1, 1998 and expires on January 1, 2002. Completion of this project will result in the installation of thirty internal combustion engines with generators capable of providing a nominal 54.75 MW of electrical power.

### REGULATORY CLASSIFICATION

Acid Rain: This facility is subject to the acid rain provisions of the Clean Air Act (Title IV).

Title V Major Source: This facility is a Title V major source of air pollution.

PSD Major Source: Each pollutant with potential emissions greater than the Significant Emissions Rates specified in Table 62-212.400-2, F.A.C. requires a PSD review and Best Available Control Technology (BACT) determination. For this project, emissions of no pollutant are significant or subject to BACT standards, provided that the Emission Unit is operated as specified in this permit. However, the existing facility is classified as a PSD Major Source.

### PERMIT SCHEDULE

- 01-23-01: Date of Receipt of Permit Application
- 02-07-01: Application deemed complete
- 03-30-01: Intent issued
- 04-04-01: Notice published in the Tampa Tribune

### RELEVANT DOCUMENTS

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Application received 1-23-01
- Department letter dated 1-30-01
- Company letters dated 2-06-01 and 2-15-01
- Technical Evaluation and Preliminary Determination dated 3-21-01
- EPA's letter dated April 17, 2001

## SECTION II. ADMINISTRATIVE REQUIREMENTS

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### GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114.
2. Compliance Authority: All documents related compliance activities such as reports, tests, and notifications should be submitted to the Air Management Division, Hillsborough County Environmental Protection Commission, 1900 Ninth Avenue, Tampa, Florida 33605. The phone number is 813/272-5960 and the fax number is 813/272-5157.
3. Terminology: The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code.
4. General Conditions: The owner and operator are subject to, and shall operate under, the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
5. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
6. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
8. Expiration: This air construction permit shall expire on **December 1, 2001**. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4) 62-4.080, and 62-4.210, F.A.C.]
9. Title V Permit: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for a Title V operation permit at least ninety days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Bureau of Air Regulation, and a copy sent to the Department's Southwest District office. [Rules 62-4.030, 62-4.050, 62-4.220, and 62-213.420, F.A.C.]

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

This permit addresses the following emissions units.

EU ID No.	EMISSIONS UNIT DESCRIPTION
001 – 006 <sup>#</sup>	Six boilers that are fired using No. 6 fuel oil.
007 – 036 <sup>*</sup>	30 Caterpillar XQ2000 Power Modules. Each Power Module consists of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power rating of 2,593 brake horsepower (bhp) at 100 percent load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100 percent load. The IC engines will be fired exclusively with low-sulfur (maximum of 0.05 weight percent sulfur) diesel fuel oil.

# Existing Emission units

\* New Emission units

**The following Specific Conditions apply to the new emission units 007-036:**

#### PERFORMANCE RESTRICTIONS

1. **Internal Combustion Engines:** The permittee is authorized to install, tune, operate and maintain thirty new internal combustion engines with electrical generator sets (Caterpillar XQ2000 Power modules). The thirty generators are designed to produce a maximum 54.75 MW of electrical power. **[Applicant Request]**
2. **Future PSD Review:** The internal combustion engines shall not exceed the permitted hours of operation, nor the permitted NO<sub>x</sub> emission limits allowed by this permit. This restriction is based on the permittee's request, which formed the basis of the PSD non-applicability determination and resulted in the emission standards specified in this permit. For any request to modify this emission unit in any way (whether a physical or operational modification, including a change in the allowable hours of operation or heat input) the permittee shall submit a full PSD permit application. **[Rules 62-212.400(2)(g) and 62-212.400(6)(b), F.A.C.]**
3. **Allowable Fuel:** The internal combustion engine shall be fired primarily with No. 2 fuel oil. The permittee shall demonstrate compliance with the fuel sulfur limit by keeping the records specified in this permit. **[Applicant Request, Rule 62-210.200, F.A.C. (Definition - PTE)]**
4. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify the Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. **[Rule 62-4.130, F.A.C.]**
5. **Noise Nuisance:** The permittee shall comply with the noise nuisance ordinances as outlined in Chapter 1-10 of the Rules of Environmental Protection Commission of Hillsborough County. **[Rule 1-10.01(B)(9) and Rule 1-10.03, EPCHC]**

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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#### EMISSIONS CONTROLS

6. Unconfined Emissions of Particulate Matter: [Rule 62-296.320(4)(c), F.A.C.]

- (a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
- (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
- (c) Reasonable precautions include the following:
  - Paving and maintenance of roads, parking areas and yards.
  - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
  - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
  - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent particulate from becoming airborne.
  - Landscaping or planting of vegetation.
  - Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
  - Confining abrasive blasting where possible.
  - Enclosure or covering of conveyor systems.
- (d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

#### EMISSION STANDARDS

7. Nitrogen Oxides (NO<sub>x</sub>):

NO<sub>x</sub> emissions from each internal combustion engine shall not exceed 53 lb/hr. Additionally, annual emissions of NO<sub>x</sub> in tpy from these emission units shall be calculated by using the NO<sub>x</sub> emission rate of 53 lb/hr multiplied by the total operating hours for the thirty engines divided by 2000. This NO<sub>x</sub> emission in tpy when combined with the NO<sub>x</sub> emissions for the existing emission units (EU001-EU006) in tpy shall not exceed 682 TPY, based upon a consecutive 12-month period. This facility-wide annual emissions cap shall become effective on the fifth day of the month following the start-up of the first internal combustion engine, and compliance shall begin based upon the first twelve months of operation thereafter. NO<sub>x</sub> emissions from the existing emission units (EU001-EU006) shall not exceed 100 TPY. NO<sub>x</sub> emissions from the existing emission units shall be determined using CEM's and converted to tpy.

[Rule 62-212.400, F.A.C. (PSD avoidance)]

8. General Visible Emissions Standard:

Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

#### EXCESS EMISSIONS

9. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited. [Rule 62-210.700(4), F.A.C.]
10. Excess Emissions Allowed: Providing the permittee adheres to best operational practices to minimize the amount and duration of excess emissions, the following conditions shall apply:
  - (a) During startup and shutdown, visible emissions shall not exceed 27% opacity for up to 2 hours in any 24-hour period. [Design; Rule 62-210.700(1), F.A.C.]

#### OPERATIONAL LIMITATIONS

11. Fuel Oil Specification: Only No. 2 fuel oil can be fired in the internal combustion engines. The maximum sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight. [Rule 62-210.200, F.A.C. (Definitions – PTE)]
12. Fuel Oil Consumption: The maximum No. 2 fuel oil allowed to be burned in thirty internal combustion engines combined is 2,713,880 gallons per year, which is equivalent to 22,100 engine-hours per year at 100% load. [Rule 62-210.200, F.A.C. (Definitions – PTE)]
13. Permitted Capacity: The heat input to each internal combustion engine from firing No. 2 fuel oil shall not exceed 17 MMBtu per hour at 100% load. [Design, Rule 62-210.200, F.A.C. (Definition – PTE)]
14. Hours of Operation: The thirty internal combustion engines shall operate no more than 22,100 engine-hours during any consecutive 12-month period. The permittee shall install, calibrate, operate and maintain a monitoring system to measure the hours of operation on each internal combustion engine. [Rule 62-210.200, F.A.C. (Definitions – PTE)]
15. Operational Period: The thirty internal combustion engines shall cease operation in June 2003. [Applicant Request]

#### EMISSIONS PERFORMANCE TESTING

16. Sampling Facilities: The permittee shall design the internal combustion engine stack to accommodate adequate testing and sampling locations in order to determine compliance with the applicable emission limits specified by this permit. [Rule 62-297.310(6), F.A.C.]
17. Performance Test Methods: Initial (I) and Annual (A) compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.
  - (a) EPA Method 7 or 7E – Determination of Nitrogen Oxide Emissions from Stationary Sources (I, A);
  - (b) EPA Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources (I, A);No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the DEP Emissions Monitoring Section Administrator.

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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18. Fuel Oil Monitoring: The fuel shall be monitored initially and annually for the sulfur content using ASTM D4294 Method (or equivalent). The permittee shall also maintain daily records of fuel oil consumption for the emission units. [Rule 62-297.440, F.A.C., and 62-210.200, F.A.C.]
19. Test Notification: The permittee shall notify the Compliance Authority in writing at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9., F.A.C.]
20. Initial Tests Required: Initial performance tests to demonstrate compliance with the emission standards specified in this permit shall be conducted within 60 days after achieving at least 90% of permitted capacity, but not later than 180 days after initial operation of the emissions unit. Initial performance tests shall be conducted for NO<sub>x</sub> and visible emissions on a sample of 5 (five) randomly picked internal combustion engines for the first year. A different set of randomly picked five engines from the remaining 25 (twenty five) internal combustion engines will be tested during the second year of operation. [Rule 62-297.310(7)(a)1., and 62-297.310(7)(c), F.A.C.]
21. Annual Performance Tests: To demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for NO<sub>x</sub> and visible emissions on the emission units that operated for more than 3,700 hours in the preceding 12-month period. Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rule 62-297.310(7)(a)4., and 62-297.310(7)(c), F.A.C.]
22. Tests Prior to Permit Renewal: Prior to renewing the air operation permit, the permittee shall conduct performance tests for NO<sub>x</sub> and visible emissions on one of the internal combustion engines. These tests shall be conducted within the 12-month period prior to renewing the air operation permit. For pollutants required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision. [Rule 62-297.310(7)(a)3., F.A.C.]
23. Internal Combustion Engine Testing Capacity: Performance tests for compliance with standards specified in this permit shall be conducted with the emission unit operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit. If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. However, subsequent operation is limited to 110 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Emissions performance tests shall meet all applicable requirements of Chapters 62-204 and 62-297, F.A.C. [Rule 62-297.310(2), F.A.C.]
24. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
25. Applicable Test Procedures
  - (a) Required Sampling Time.
    1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. [Rule 62-297.310(4)(a)1., F.A.C.]



### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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2. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. [Rule 62-297.310(4)(a)2., F.A.C.]
  - (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet. [Rule 62-297.310(4)(b), F.A.C.]
  - (c) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C. [Rule 62-297.310(4)(d), F.A.C.]
26. Determination of Process Variables
- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. [Rule 62-297.310(5)(a), F.A.C.]
  - (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5)(b), F.A.C.]
27. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

### RECORDKEEPING AND REPORTING REQUIREMENTS

28. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]
29. Emissions Performance Test Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
30. Monthly Operations Summary: By the fifth calendar day of each month, the permittee shall record the 12-month hours of operation of the internal combustion engines, 12-month emission totals for NO<sub>x</sub> and amount of the No. 2 fuel oil fired for the internal combustion engines. The information shall be recorded in a written or electronic log and shall be available for inspection and/or printing within at least one day of a request from the Compliance Authority. [Rule 62-4.160(15), F.A.C.]

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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31. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

**The following Specific Conditions apply to the existing emission units 001-006:**

1. The existing emission units shall comply with all the requirements of 0570038-001-AV with the exceptions listed below in conditions 2 through 4. [Title V Permit Requirements]
2. For each 12-month period that the thirty internal combustion engines (EU007-EU036) operate below 22,100 engine-hours, the existing emission units 001 through 006 may operate to reach the facility-wide NO<sub>x</sub> cap of 682 tpy. NO<sub>x</sub> emissions from the existing emission units (EU001-EU006) shall not exceed 100 tpy. The existing emission units shall use the CEM system to demonstrate compliance with the emission limits for NO<sub>x</sub>. [Rule 62-212.400, F.A.C. (PSD avoidance)]
3. The existing emission units may not operate simultaneously with the internal combustion engines unless the facility must do so to avoid interrupting customers. In the event that the facility does operate the two sources together, upon request from the Department, shall provide the necessary documentation to show the necessity of operating the two sources simultaneously. [Applicant Request]
4. The existing emission units may operate with a NO<sub>x</sub> emissions cap of 100 tpy after the internal combustion engines ceases operation in June 2003. [Applicant Request]

**APPENDIX GC**  
**GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]**

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- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 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.
- G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and 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 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.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment 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.
- G.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.
- G.6 The permittee shall 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.
- G.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 a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- a) Have access to and copy and records that must be kept under the 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.
- G.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 non-compliance; and
  - b) The period of noncompliance, including 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.

**APPENDIX GC**  
**GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]**

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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.

- G.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 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.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.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- a) Determination of Best Available Control Technology ( )
  - b) Determination of Prevention of Significant Deterioration ( ); and
  - c) Compliance with New Source Performance Standards ( ).
- G.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 or 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; and
    - 6. The results of such analyses.
- G.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 corrected promptly.

# Memorandum

## Florida Department of Environmental Protection

BAR

TO: Howard L. Rhodes

THRU: Al Linero *AL* 10/3

FROM: Syed Arif *Syed Arif* 10/3

DATE: October 3, 2002

SUBJECT: Tampa Electric Company Hookers Point Station  
DEP File No. 0570038-004-AC; 30 Internal Combustion Engines

Attached for approval and signature is a construction permit modification to Tampa Electric Company for the Hookers Point Station located in Hillsborough County. A construction permit was issued to TEC in April 2001 for installation of 30 (thirty) internal combustion (IC) diesel engines. The original permit restricted the operation of these diesel engines until June 2003. This permit modification allows TEC for continued operation of the 30 IC engines following June 2003. The modification also requires the oil-fired Boilers 1 through 6 to be permanently retired no later than January 1, 2003.

Day 90 for the project is October 22, 2002.

I recommend your approval and signature

Attachments

/sa



**TAMPA ELECTRIC**

**RECEIVED**

**SEP 26 2002**

**BUREAU OF AIR REGULATION**

September 25, 2002

Mr. Al Linero, P.E.  
Acting Bureau Chief  
Florida Department of Environmental Protection  
111 South Magnolia Drive, Suite 4  
Tallahassee, FL 32301

**Via FedEx**  
**Airbill No. 7919 4163 8730**

**Re: Tampa Electric Company  
Hookers Point Station- Diesel Generators AC Permit  
DEP File No. 0570038-004- AC  
Response to Request for Additional Information**

Dear Mr. Linero:

Tampa Electric Company (TEC) has received the Environmental Protection Commission of Hillsborough County's (EPCHC) request for additional information dated August 29, 2002 addressing TEC's request for an Air Construction Permit. The Air Construction Permit Application submitted to the Florida Department of Environmental Protection (the Department) in June 2002 requested the following two revisions to Department Air Construction Permit No. 0570038-002-AC:

- (1) Deletion of Section III., Condition No. 15 to allow for continued operation of the 30 internal combustion engines after June 2003; and
- (2) An increase in the total annual fuel consumption for all 30 engines from 2,713,880 gallons per year to 2,828,00 gallons per year due to higher actual engine fuel consumption rates.

This correspondence is intended to provide a response to each specific issue raised by the Department per telephone conversation between Mr. Syed Arif with the Department and Dru Latchman with TEC. For your convenience, TEC has restated each point and provided a response below each specific issue.

EPCHC Comment 1

Rule 62-4.160(6) and (8) states, "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, 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." And "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 the 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 maybe subject to enforcement action by the Department for penalties or for revocation of this permit."

Historically, facilities are only required to periodically demonstrate compliance with the standards and rules by conducting annual stack tests, maintaining daily or monthly records, etc. However, the rules require continuous compliance. Therefore, TEC needs to provide information as to how they plan to demonstrate continuous compliance with the NO<sub>x</sub> and opacity limits for the IC Diesel Generators pursuant to Rule 62-213.440(1)(b)1.b., F.A.C.

The draft construction permit requires less than annual testing. Since the combustion temperature and exhaust gas temperature affect the level of NO<sub>x</sub> emissions, EPC staff recommends that TEC should consider monitoring the temperature of the exhaust gasses from the IC Diesel Generators in addition to annual testing and fuel recordkeeping in order to ensure continuous compliance with the NO<sub>x</sub> limits. Additionally, EPC Staff recommends TEC personnel be required to perform daily instantaneous visible emissions observations in order to meet the requirements of periodic monitoring for the IC diesel generators.

### **TEC Response**

The EPC comments do not address either the removal of the end operating date, June 2003, or the increase in the annual fuel limit, but rather raise concerns involving engine stack testing requirements that were previously resolved with issuance of the initial Department construction permit in April 2001. The EPC comments indicates that continuous compliance with the NO<sub>x</sub> and opacity limits must be demonstrated pursuant to Rule 62-213.440(1)(b)1.b., F.A.C. and suggests continuous stack exhaust temperature and daily visible emissions monitoring.

Rule 62-213.440(1)(b)1.b., F.A.C. is applicable to operation permits for major sources (i.e., Title V permits) and therefore is not relevant to Department construction permits. In addition, the Department rule cited by EPC pertains to Title V permit periodic monitoring requirements – such requirements do not mandate continuous monitoring.

The 30 IC engines are use to provide power during peak demand periods and therefore do not operate on a set schedule. On a weekly basis, TEC proposes to monitor and record the manifold exhaust temperature of each IC engine that is operating on a day during the week when the units are dispatched; the number of IC engines monitored each week will depend on the number of engines in operation. To the extent possible, TEC will monitor the engines each week with the objective of periodically monitoring the manifold exhaust temperatures of all 30 IC engines. Upon the occurrence of an abnormal temperature reading, the unit will be shut down and investigated. The incident time, date, cause, and corrective action will be recorded. During normal engine operation (e.g., excluding startup, shutdown, and malfunction), the IC engine manifold exhaust temperatures are not expected to vary significantly. In addition, the IC engines are only subject to a mass emission rate (i.e., lb/hr) permit limit for NO<sub>x</sub>. Accordingly, abnormal engine manifold exhaust temperatures will not provide credible evidence of an exceedance of the NO<sub>x</sub> permit limitation.

For visible emissions, on a weekly basis TEC proposes using EPA Reference Method 9 to evaluate visible emissions on a maximum of six (6) IC engines on a day during the week when the units are dispatched. The number of IC engines monitored each week will depend on the number of engines in operation. To the extent possible, TEC will monitor different engines each week with the objective of periodically monitoring visible emissions of all 30 IC engines. The IC engines are subject to a 20 percent opacity permit limitation. During normal engine operation (i.e., excluding startup, shutdown, and malfunction), visible emissions are expected to be five percent opacity or

less. Following three months of weekly visible emissions monitoring, TEC proposes to reduce the frequency of visible emissions monitoring to once per month in the event, monitored visible emissions from all IC engines are consistently 10 percent opacity or less. The frequency of visible emissions monitoring will revert to a weekly schedule in the event monitored visible emissions exceed 10 percent opacity for any IC engine.

EPCHC Comment 2

EPC staff noted the permit requires annual tests only for those generators that operate more than 3700 hours per year. EPC staff recommends the modification of the testing requirements to require the testing of at least six (6) different IC generators per year to ensure that all thirty (30) emissions units are tested prior to permit renewal in accordance with Rule 62-297.310(7)(a)3., F.A.C. In addition, Rule 62-297.310(7)(a)3., F.A.C. does allow for the exemption of those emissions units (generators) which operates less than 400 hrs/yr not 3700 hrs/yr.

TEC Response

As noted in the general comments, issues regarding engine stack testing requirements were resolved with issuance of the initial Department construction permit in April 2001. The current emissions performance testing requirements specified in Department Construction Permit No. 0570038-002-AC are considered adequate to confirm initial and on-going compliance with the applicable permit emission limitations for NO<sub>x</sub> and opacity. However, TEC is amenable to EPCHC's request and is willing to test six (6) IC engines instead of five (5) engines.

If further questions or concerns arise pertaining to the additional information TEC has provided please contact Dru Latchman or me (813) 641-5034.

Sincerely,

*Dru Latchman*  
*for*

Laura R. Crouch  
Manager - Air Programs  
Environmental Affairs

EA/bmr/DNL129

Enclosure

c/enc: Mr. Jerry Campbell, EPCHC  
Mr. Syed Arif, FDEP  
Mr. Jerry Kissel - FDEP SW





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AUG 28 2002

BUREAU OF AIR REGULATION

August 27, 2002

Mr. Al. Linero, P.E.  
Administrator New Source Review Section  
Florida Department of Environmental Protection  
111 South Magnolia Drive, Suite 4  
Tallahassee, FL 32301

Via FedEx  
Airbill No. 7905 9247 7200

**Re: Tampa Electric Company  
Hookers Point Station  
Permit No.: 0570038-002-AC  
Mobile Generator Project**

Dear Mr. Linero:

Please find enclosed the Affidavit of Publication from the Tampa Tribune, as required by 62-110.106(5), F.A.C. This public notice was published in the legal section of the Tampa Tribune on Wednesday, August 21, 2002. If you have any questions, please feel free to telephone Dru Latchman or me at (813) 641-5034.

Sincerely,

*Dru Latchman  
for*

Laura R. Crouch  
Manager- Air Programs  
Environmental Affairs

EA/bmr/DNLI25

Enclosure

cc: Mr. Jerry Campbell, EPCHC  
Mr. Clair Fancy, FDEP  
Mr. Jerry Kissel - FDEP SW

*Clair*

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P. O. BOX 1111 TAMPA, FL 33601-0111

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**THE TAMPA TRIBUNE**  
**Published Daily**  
**Tampa, Hillsborough County, Florida**

State of Florida        )  
County of Hillsborough } ss.

Before the undersigned authority personally appeared J. Rosenthal, who on oath says that she is Advertising Billing Manager of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE

in the matter of PUBLIC NOTICE OF INTENT

was published in said newspaper in the issues of AUGUST 21, 2002

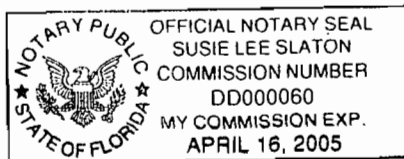
Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

*J. Rosenthal*

Sworn to and subscribed by me, this 21 day  
of AUGUST, A.D. 20 02

Personally Known ☒ or Produced Identification \_\_\_\_\_  
Type of Identification Produced \_\_\_\_\_

*Susie Lee Slaton*



**RECEIVED**

AUG 28 2002

BUREAU OF AIR REGULATION

**PUBLIC NOTICE OF INTENT  
TO ISSUE AIR  
CONSTRUCTION PERMIT  
MODIFICATION**

STATE OF FLORIDA  
DEPARTMENT OF  
ENVIRONMENTAL  
PROTECTION

DEP File No.  
0570038-004-AC

Hookers Point Station  
Tampa Electric Company  
Hillsborough County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Tampa Electric Company (TEC) for the Hookers Point Station located in Hillsborough County. An air construction permit was issued to TEC in April 2001 for installation of 30 (thirty) internal combustion (IC) diesel engines. This permit modification allows for continued operation of the 30 IC engines following June 2003 and permanent shutdown of Boilers 1 through 6 by January 1, 2003. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's mailing address is: Tampa Electric Company, Post Office Box 111, Tampa, Florida 33601-0111.

During the original permitting in 2001, the Department applied an emissions cap on the existing boilers 1-6 to insure permanent and enforceable reductions of actual emissions. This allowed the installation of IC engines to "net out" of PSD review. The reduction in emissions from Boilers 1-6 will be greater than previously estimated due to their permanent shutdown. The installation of the IC units will become permanent. Boilers 1-6 were fired on residual fuel oil. The IC engines are restricted to 0.05 percent sulfur diesel fuel.

The Department will issue the Final permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit modification issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue PSD permit modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the 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 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or

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

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

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

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

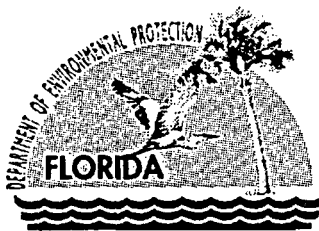
A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental  
Protection Bureau of Air  
Regulation  
Suite 4  
111 S. Magnolia Drive  
Tallahassee, Florida, 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979

Dept. of Environmental  
Protection Southwest  
District  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8218  
Telephone: 813/744-6100  
Fax: 813/744-6084

Hillsborough County  
Environmental Protection  
Commission  
1900 Ninth Avenue  
Tampa, Florida 33605  
Telephone: 813/272-5960  
Fax: 813/272-5157

The complete project file includes the application, Draft permit modification, and the information submitted by the responsible official exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.  
3640 8/21/02



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

August 13, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Laura R. Crouch  
Manager – Air Programs  
Tampa Electric Company  
Post Office Box 111  
Tampa, Florida 33601-0111

Re: DEP File No. 0570038-004-AC  
Hookers Point Station


Dear Ms. Crouch:

Enclosed is one copy of the Draft Air Construction Permit Modification for the Hookers Point Station located in Hillsborough County. The Department's Intent to Issue Air Construction Permit Modification and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" must be published in a newspaper of general circulation in Hillsborough County. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven (7) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit modification.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please call Mr. Syed Arif at 850/921-9528.

Sincerely,

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

CHF/sa

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

In the Matter of an  
Application for Permit Modification by:

Ms. Laura R. Crouch  
Manager – Air Programs  
Tampa Electric Company  
Post Office Box 111  
Tampa, Florida 33601-0111

DEP File No. 0570038-004-AC  
Hookers Point Station  
Hillsborough County

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**INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION**

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit modification (copy of DRAFT Permit Modification attached) for the proposed action, as detailed in the application specified above, for the reasons stated below.

The applicant, Tampa Electric Company applied on April 1, 2002 to the Department for a permit modification to allow for continued operation of the thirty internal combustion engines at the existing Hookers Point Station in Hillsborough County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that a construction permit modification is required.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of Public Notice of Intent to Issue Air Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the 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 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

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

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

Mediation is not available in this proceeding.

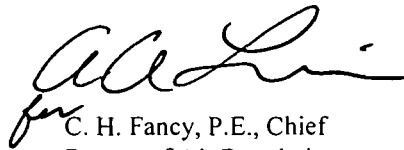
In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

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

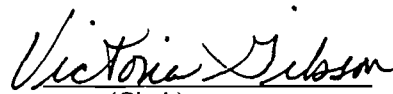
**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit Modification (including the Public Notice of Intent to Issue Air Construction Permit Modification, and the Draft permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 8/15/02 to the person(s) listed:

Ms. Laura R. Crouch, Tampa Electric Company\*  
Mr. J. Kissel, DEP-SWD  
Mr. J. Campbell, EPCHC

Clerk Stamp

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

 August 15, 2002  
(Clerk) (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0570038-004-AC

Hookers Point Station  
Tampa Electric Company  
Hillsborough County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Tampa Electric Company (TEC) for the Hookers Point Station located in Hillsborough County. An air construction permit was issued to TEC in April 2001 for installation of 30 (thirty) internal combustion (IC) diesel engines. This permit modification allows for continued operation of the 30 IC engines following June 2003 and permanent shutdown of Boilers 1 through 6 by January 1, 2003. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's mailing address is: Tampa Electric Company, Post Office Box 111, Tampa, Florida 33601-0111.

During the original permitting in 2001, the Department applied an emissions cap on the existing boilers 1-6 to insure permanent and enforceable reductions of actual emissions. This allowed the installation of IC engines to "net out" of PSD review. The reduction in emissions from Boilers 1-6 will be greater than previously estimated due to their permanent shutdown. The installation of the IC units will become permanent. Boilers 1-6 were fired on residual fuel oil. The IC engines are restricted to 0.05 percent sulfur diesel fuel.

The Department will issue the Final permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit modification issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue PSD permit modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the 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 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice.

**NOTICE TO BE PUBLISHED IN THE NEWSPAPER**



or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

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

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

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection	Dept. of Environmental Protection	Hillsborough County Environmental
Bureau of Air Regulation	Southwest District	Protection Commission
Suite 4, 111 S. Magnolia Drive	3804 Coconut Palm Drive	1900 Ninth Avenue
Tallahassee, Florida, 32301	Tampa, Florida 33619-8218	Tampa, Florida 33605
Telephone: 850/488-0114	Telephone: 813/744-6100	Telephone: 813/272-5960
Fax: 850/922-6979	Fax: 813/744-6084	Fax: 813/272-5157

The complete project file includes the application, Draft permit modification, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

# DRAFT

## PERMITTEE:

Tampa Electric Company  
Hookers Point Station  
1700 Hemlock Street  
Tampa, Florida 33605-6660

**ARMS Permit No.** 0570038-004-AC

**Facility ID No.** 0570038

**SIC No.** 4911

**Expires:** February 1, 2003

## *Authorized Representative:*

Ms. Laura R. Crouch  
Manager – Air Program

## PROJECT AND LOCATION

This air construction permit describes the existing facility that was approved in April 2001 and its current modifications of allowing the thirty diesel engines to operate permanently and the permanent shutdown of Boilers 1-6. The diesel engine emissions unit number will be changed to 008-037.

The units are located in Hillsborough County at 1700 Hemlock Street, Tampa. The UTM coordinates are Zone 17, 358 km E, 3091 km N.

## STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

## APPENDICES

The following Appendices are attached as part of this permit.

0570038-002-AC Original Air Construction Permit  
Appendix GC Construction Permit General Conditions

---

Howard L. Rhodes, Director  
Division of Air Resources Management

## ADMINISTRATIVE REQUIREMENTS

---

### FACILITY DESCRIPTION

The existing facility consists of six oil-fired steam boilers (Units Nos. 1 through 6) and thirty internal combustion diesel engines at the Hookers Point Station located at 1700 Hemlock Street, Tampa, Hillsborough County. All the boilers are fired using No. 6 fuel oil and the diesel engines are fired with 0.05 percent diesel fuel oil. The boilers may also fire a limited quantity of on-specification used oil. The total generating capacity at this facility is 227 megawatts. Also located at this facility are miscellaneous unregulated/insignificant emissions units and/or activities. The thirty internal combustion engines with generators are capable of providing a nominal 54.75 MW of electrical power.

### REGULATORY CLASSIFICATION

Acid Rain: This facility is subject to the acid rain provisions of the Clean Air Act (Title IV).

Title V Major Source: This facility is a Title V major source of air pollution.

PSD Major Source: Each pollutant with potential emissions greater than the Significant Emissions Rates specified in Table 62-212.400-2, F.A.C. requires a PSD review and Best Available Control Technology (BACT) determination. For this project, emissions of no pollutant are significant or subject to BACT standards, provided that the Emission Unit is operated as specified in this permit. However, the existing facility is classified as a PSD Major Source.

### PERMIT SCHEDULE

- 04-01-02: Date of Receipt of Permit Application
- 07-02-02: Application deemed complete
- 08-xx-02: Intent issued
- 08-xx-02: Notice published in \_\_\_\_\_

### RELEVANT DOCUMENTS

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Application received 4-01-02
- Department letter dated 5-02-02
- Company letter receive date 7-02-02
- Intent issue date 8-xx-02

**APPENDIX SC**  
**SPECIFIC CONDITIONS**

1. This permit, 0570038-004-AC, supersedes original permit 0570038-002-AC issued on April 20, 2001.
2. The provisions of air construction permit 0570038-002-AC are attached and incorporated into this air construction permit except for the following changes:

**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

This permit addresses the following emissions units.

<b>EU ID No.</b>	<b>EMISSIONS UNIT DESCRIPTION</b>
001 – 006 <sup>#</sup>	Six boilers that are fired using No. 6 fuel oil.
<del>007008–</del> <del>036*037*</del>	30 Caterpillar XQ2000 Power Modules. Each Power Module consists of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power rating of 2,593 brake horsepower (bhp) at 100 percent load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100 percent load. The IC engines will be fired exclusively with low-sulfur (maximum of 0.05 weight percent sulfur) diesel fuel oil.

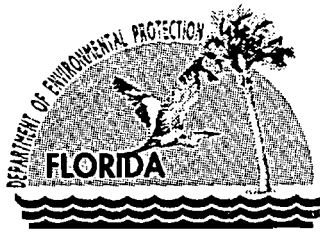
# Existing Emission units

\* New Emission units

12. Fuel Oil Consumption: The maximum No. 2 fuel oil allowed to be burned in thirty internal combustion engines combined is ~~2,713,880~~ 2,828,800 gallons per year, which is equivalent to 22,100 engine-hours per year at 100% load. [Rule 62-210.200, F.A.C. (Definitions – PTE)]
15. Operational Period: The thirty internal combustion engines ~~shall cease operation in~~ can operate beyond June 2003. [Applicant Request]

**The following Specific Conditions apply to the existing emission units 001-006:**

4. The existing emission units ~~may operate with a NO<sub>x</sub> emissions cap of 100 tpy after the internal combustion engines ceases operation in June 2003~~ shall be permanently retired as of January 1, 2003. [Applicant Request]



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

## PERMITTEE:

Tampa Electric Company  
Hookers Point Station  
1700 Hemlock Street  
Tampa, Florida 33605-6660

**ARMS Permit No.** 0570038-002-AC

**Facility ID No.** 0570038

**SIC No.** 4911

**Expires:** December 1, 2001

## Authorized Representative:

Mr. Darryl Scott  
General Manager

## PROJECT AND LOCATION

The proposed project authorizes the installation of thirty internal combustion engines with electrical generator sets. The thirty engines are capable of producing a nominal 54.75 MW of electricity.

The project will be located in Hillsborough County at 1700 Hemlock Street, Tampa. The UTM coordinates are Zone 17, 358 km E, 3091 km N.

## STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

## APPENDICES

The following Appendices are attached as part of this permit.

Appendix GC - Construction Permit General Conditions

---

Howard L. Rhodes, Director  
Division of Air Resources Management

## SECTION II. ADMINISTRATIVE REQUIREMENTS

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### FACILITY DESCRIPTION

The existing facility consists of six oil-fired steam boilers (Units Nos. 1 through 6) at the Hookers Point Station located at 1700 Hemlock Street, Tampa, Hillsborough County. All the boilers are fired using No. 6 fuel oil. The boilers may also fire a limited quantity of on-specification used oil. The total generating capacity at this facility is 227 megawatts. Also located at this facility are miscellaneous unregulated/insignificant emissions units and/or activities. Title V Final Permit No. 0570038-001-AV currently authorizes operation of the existing steam boilers. Final Title V Permit was issued with an effective date of January 1, 1998 and expires on January 1, 2002. Completion of this project will result in the installation of thirty internal combustion engines with generators capable of providing a nominal 54.75 MW of electrical power.

### REGULATORY CLASSIFICATION

Acid Rain: This facility is subject to the acid rain provisions of the Clean Air Act (Title IV).

Title V Major Source: This facility is a Title V major source of air pollution.

PSD Major Source: Each pollutant with potential emissions greater than the Significant Emissions Rates specified in Table 62-212.400-2, F.A.C. requires a PSD review and Best Available Control Technology (BACT) determination. For this project, emissions of no pollutant are significant or subject to BACT standards, provided that the Emission Unit is operated as specified in this permit. However, the existing facility is classified as a PSD Major Source.

### PERMIT SCHEDULE

- 01-23-01: Date of Receipt of Permit Application
- 02-07-01: Application deemed complete
- 03-30-01: Intent issued
- 04-04-01: Notice published in the Tampa Tribune

### RELEVANT DOCUMENTS

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Application received 1-23-01
- Department letter dated 1-30-01
- Company letters dated 2-06-01 and 2-15-01
- Technical Evaluation and Preliminary Determination dated 3-21-01
- EPA's letter dated April 17, 2001

## SECTION II. ADMINISTRATIVE REQUIREMENTS

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### GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114.
2. Compliance Authority: All documents related compliance activities such as reports, tests, and notifications should be submitted to the Air Management Division, Hillsborough County Environmental Protection Commission, 1900 Ninth Avenue, Tampa, Florida 33605. The phone number is 813/272-5960 and the fax number is 813/272-5157.
3. Terminology: The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code.
4. General Conditions: The owner and operator are subject to, and shall operate under, the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
5. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
6. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
8. Expiration: This air construction permit shall expire on **December 1, 2001**. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4) 62-4.080, and 62-4.210, F.A.C.]
9. Title V Permit: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for a Title V operation permit at least ninety days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The

## SECTION II. ADMINISTRATIVE REQUIREMENTS

application shall be submitted to the Department's Bureau of Air Regulation, and a copy sent to the Department's Southwest District office. [Rules 62-4.030, 62-4.050, 62-4.220, and 62-213.420, F.A.C.]

This permit addresses the following emissions units.

EU ID No.	EMISSIONS UNIT DESCRIPTION
001 – 006 <sup>#</sup>	Six boilers that are fired using No. 6 fuel oil.
007 – 036 <sup>*</sup>	30 Caterpillar XQ2000 Power Modules. Each Power Module consists of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power rating of 2,593 brake horsepower (bhp) at 100 percent load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100 percent load. The IC engines will be fired exclusively with low-sulfur (maximum of 0.05 weight percent sulfur) diesel fuel oil.

# Existing Emission units

\* New Emission units

**The following Specific Conditions apply to the new emission units 007-036:**

### PERFORMANCE RESTRICTIONS

1. **Internal Combustion Engines:** The permittee is authorized to install, tune, operate and maintain thirty new internal combustion engines with electrical generator sets (Caterpillar XQ2000 Power modules). The thirty generators are designed to produce a maximum 54.75 MW of electrical power. [Applicant Request]
2. **Future PSD Review:** The internal combustion engines shall not exceed the permitted hours of operation, nor the permitted NO<sub>x</sub> emission limits allowed by this permit. This restriction is based on the permittee's request, which formed the basis of the PSD non-applicability determination and resulted in the emission standards specified in this permit. For any request to modify this emission unit in any way (whether a physical or operational modification, including a change in the allowable hours of operation or heat input) the permittee shall submit a full PSD permit application. [Rules 62-212.400(2)(g) and 62-212.400(6)(b), F.A.C.]
3. **Allowable Fuel:** The internal combustion engine shall be fired primarily with No. 2 fuel oil. The permittee shall demonstrate compliance with the fuel sulfur limit by keeping the records specified in this permit. [Applicant Request, Rule 62-210.200, F.A.C. (Definition - PTE)]
4. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify the Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]



### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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5. Noise Nuisance: The permittee shall comply with the noise nuisance ordinances as outlined in Chapter 1-10 of the Rules of Environmental Protection Commission of Hillsborough County. [**Rule 1-10.01(B)(9) and Rule 1-10.03, EPCHC**]

#### EMISSIONS CONTROLS

6. Unconfined Emissions of Particulate Matter: [**Rule 62-296.320(4)(c), F.A.C.**]
- (a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
- (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
- (c) Reasonable precautions include the following:
- Paving and maintenance of roads, parking areas and yards.
  - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
  - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
  - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent particulate from becoming airborne.
  - Landscaping or planting of vegetation.
  - Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
  - Confining abrasive blasting where possible.
  - Enclosure or covering of conveyor systems.
- (d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

#### EMISSION STANDARDS

7. Nitrogen Oxides (NO<sub>x</sub>):

NO<sub>x</sub> emissions from each internal combustion engine shall not exceed 53 lb/hr. Additionally, annual emissions of NO<sub>x</sub> in tpy from these emission units shall be calculated by using the NO<sub>x</sub> emission rate of 53 lb/hr multiplied by the total operating hours for the thirty engines divided by 2000. This NO<sub>x</sub> emission in tpy when combined with the NO<sub>x</sub> emissions for the existing emission units (EU001-EU006) in tpy shall not exceed 682 TPY, based upon a consecutive 12-month period. This facility-wide annual emissions cap shall become effective on the fifth day of the month following the start-up of the first internal combustion engine, and compliance shall begin based upon the first twelve months of operation thereafter. NO<sub>x</sub> emissions from the existing emission units (EU001-EU006) shall not exceed 100 TPY. NO<sub>x</sub> emissions from the existing emission units shall be determined using CEM's and converted to tpy.

[**Rule 62-212.400, F.A.C. (PSD avoidance)**]

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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8. General Visible Emissions Standard:

Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

#### EXCESS EMISSIONS

9. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited. [Rule 62-210.700(4), F.A.C.]
10. Excess Emissions Allowed: Providing the permittee adheres to best operational practices to minimize the amount and duration of excess emissions, the following conditions shall apply:
- (a) During startup and shutdown, visible emissions shall not exceed 27% opacity for up to 2 hours in any 24-hour period. [Design; Rule 62-210.700(1), F.A.C.]

#### OPERATIONAL LIMITATIONS

11. Fuel Oil Specification: Only No. 2 fuel oil can be fired in the internal combustion engines. The maximum sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight. [Rule 62-210.200, F.A.C. (Definitions – PTE)]
12. Fuel Oil Consumption: The maximum No. 2 fuel oil allowed to be burned in thirty internal combustion engines combined is 2,713,880 gallons per year, which is equivalent to 22,100 engine-hours per year at 100% load. [Rule 62-210.200, F.A.C. (Definitions – PTE)]
13. Permitted Capacity: The heat input to each internal combustion engine from firing No. 2 fuel oil shall not exceed 17 MMBtu per hour at 100% load. [Design, Rule 62-210.200, F.A.C. (Definition - PTE)]
14. Hours of Operation: The thirty internal combustion engines shall operate no more than 22,100 engine-hours during any consecutive 12-month period. The permittee shall install, calibrate, operate and maintain a monitoring system to measure the hours of operation on each internal combustion engine. [Rule 62-210.200, F.A.C. (Definitions - PTE)]
15. Operational Period: The thirty internal combustion engines shall cease operation in June 2003. [Applicant Request]

#### EMISSIONS PERFORMANCE TESTING

16. Sampling Facilities: The permittee shall design the internal combustion engine stack to accommodate adequate testing and sampling locations in order to determine compliance with the applicable emission limits specified by this permit. [Rule 62-297.310(6), F.A.C.]
17. Performance Test Methods: Initial (I) and Annual (A) compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.
- (a) EPA Method 7 or 7E – Determination of Nitrogen Oxide Emissions from Stationary Sources (I, A);

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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(b) EPA Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources (I, A);

No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the DEP Emissions Monitoring Section Administrator.

18. Fuel Oil Monitoring: The fuel shall be monitored initially and annually for the sulfur content using ASTM D4294 Method (or equivalent). The permittee shall also maintain daily records of fuel oil consumption for the emission units. [Rules 62-297.440, F.A.C., and 62-210.200, F.A.C.]
19. Test Notification: The permittee shall notify the Compliance Authority in writing at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9., F.A.C.]
20. Initial Tests Required: Initial performance tests to demonstrate compliance with the emission standards specified in this permit shall be conducted within 60 days after achieving at least 90% of permitted capacity, but not later than 180 days after initial operation of the emissions unit. Initial performance tests shall be conducted for NO<sub>x</sub> and visible emissions on a sample of 5 (five) randomly picked internal combustion engines for the first year. A different set of randomly picked five engines from the remaining 25 (twenty five) internal combustion engines will be tested during the second year of operation. [Rule 62-297.310(7)(a)1., and 62-297.310(7)(c), F.A.C.]
21. Annual Performance Tests: To demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for NO<sub>x</sub> and visible emissions on the emission units that operated for more than 3,700 hours in the preceding 12-month period. Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rule 62-297.310(7)(a)4., and 62-297.310(7)(c), F.A.C.]
22. Tests Prior to Permit Renewal: Prior to renewing the air operation permit, the permittee shall conduct performance tests for NO<sub>x</sub> and visible emissions on one of the internal combustion engines. These tests shall be conducted within the 12-month period prior to renewing the air operation permit. For pollutants required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision. [Rule 62-297.310(7)(a)3., F.A.C.]
23. Internal Combustion Engine Testing Capacity: Performance tests for compliance with standards specified in this permit shall be conducted with the emission unit operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit. If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. However, subsequent operation is limited to 110 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Emissions performance tests shall meet all applicable requirements of Chapters 62-204 and 62-297, F.A.C. [Rule 62-297.310(2), F.A.C.]
24. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
25. Applicable Test Procedures
  - (a) Required Sampling Time.

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. [Rule 62-297.310(4)(a)1., F.A.C.]
  2. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. [Rule 62-297.310(4)(a)2., F.A.C.]
  - (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet. [Rule 62-297.310(4)(b), F.A.C.]
  - (c) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C. [Rule 62-297.310(4)(d), F.A.C.]
26. Determination of Process Variables
- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. [Rule 62-297.310(5)(a), F.A.C.]
  - (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5)(b), F.A.C.]
27. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

### RECORDKEEPING AND REPORTING REQUIREMENTS

28. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]
29. Emissions Performance Test Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
30. Monthly Operations Summary: By the fifth calendar day of each month, the permittee shall record the 12-month hours of operation of the internal combustion engines, 12-month emission totals for NO<sub>x</sub> and amount of the No. 2 fuel oil fired for the internal combustion engines. The information shall be recorded in

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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a written or electronic log and shall be available for inspection and/or printing within at least one day of a request from the Compliance Authority. [Rule 62-4.160(15), F.A.C.]

31. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

**The following Specific Conditions apply to the existing emission units 001-006:**

1. The existing emission units shall comply with all the requirements of 0570038-001-AV with the exceptions listed below in conditions 2 through 4. [Title V Permit Requirements]
2. For each 12-month period that the thirty internal combustion engines (EU007-EU036) operate below 22,100 engine-hours, the existing emission units 001 through 006 may operate to reach the facility-wide NO<sub>x</sub> cap of 682 tpy. NO<sub>x</sub> emissions from the existing emission units (EU001-EU006) shall not exceed 100 tpy. The existing emission units shall use the CEM system to demonstrate compliance with the emission limits for NO<sub>x</sub>. [Rule 62-212.400, F.A.C. (PSD avoidance)]
3. The existing emission units may not operate simultaneously with the internal combustion engines unless the facility must do so to avoid interrupting customers. In the event that the facility does operate the two sources together, upon request from the Department, shall provide the necessary documentation to show the necessity of operating the two sources simultaneously. [Applicant Request]
4. The existing emission units may operate with a NO<sub>x</sub> emissions cap of 100 tpy after the internal combustion engines ceases operation in June 2003. [Applicant Request].

**APPENDIX GC**  
**GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]**

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- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 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.
- G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and 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 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.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment 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.
- G.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.
- G.6 The permittee shall 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.
- G.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 a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- a) Have access to and copy and records that must be kept under the 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.
- G.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 non-compliance; and
  - b) The period of noncompliance, including 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.

**APPENDIX GC**  
**GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]**

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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.

- G.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 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.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.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- a) Determination of Best Available Control Technology ( )
  - b) Determination of Prevention of Significant Deterioration ( ); and
  - c) Compliance with New Source Performance Standards ( ).
- G.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 or 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; and
    - 6. The results of such analyses.
- G.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 corrected promptly.

## Memorandum

## Florida Department of Environmental Protection

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TO: Clair Fancy

THRU: Al Linero

FROM: Syed Arif *Syed Arif* 8/13

DATE: August 13, 2002

SUBJECT: Tampa Electric Company – Hookers Point Station

Attached for approval and signature is a construction permit modification to Tampa Electric Company for the Hookers Point Station located in Hillsborough County. A construction permit was issued to TEC in April 2001 for installation of 30 (thirty) internal combustion (IC) diesel engines. The original permit restricted the operation of these diesel engines until June 2003. This permit modification allows TEC for continued operation of the 30 IC engines following June 2003. The modification also requires the oil-fired Boilers 1 through 6 to be permanently retired no later than January 1, 2003.

I recommend your approval and signature.

August 13, 2002 is day 42 of the 90-day timeclock.

Attachments

/sa



**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

## 1. Article Addressed to:

Ms. Laura R. Crouch  
 Manager - Air Programs  
 Tampa Electric Company  
 P. O. Box 111  
 Tampa, FL 33601-0111

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) B. Date of Delivery

B. Rhind

8-20-02

C. Signature

x B. Rhind

☒ Agent  
☒ Addressee
D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

## 3. Service Type

☒ Certified Mail ☐ Express Mail  
☐ Registered ☐ Return Receipt for Merchandise  
☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes

2 7001 0320 0001 3692 8055

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-0952

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark  
Here

Sent To  
 Laura R. Crouch  
 Street, Apt. No.,  
 or P.O. Box 111  
 City, State, ZIP+4  
 Tampa, FL 33601-0111

PS Form 3800, January 2001

See Reverse for Instructions

5508  
 2692  
 1000  
 0320  
 0001  
 7001



**TAMPA ELECTRIC**

**RECEIVED**

**JUL 02 2002**

**BUREAU OF AIR REGULATION**

June 28, 2002

Mr. Syed Arif, P.E.  
New Source Review Section  
Florida Department of Environmental Protection  
111 South Magnolia Drive, Suite 4  
Tallahassee, FL 32301

**Via FedEx**  
**Airbill No. 7920 6107 1417**

**Re: Tampa Electric Company  
Hookers Point Station  
Permit No.: 0570038-002-AC  
Mobile Generator Project  
Response to Additional Information Request and  
Air Construction Permit Application**

Dear Mr. Arif:

Tampa Electric Company (TEC) has received the Florida Department of Environmental Protection's (the DEP) letter of incompleteness along with the Environmental Protection Commission of Hillsborough County's (EPCHC) comments dated May 2, 2002 addressing TEC's request that Condition B.15. of FINAL Permit 0570038-002-AC be removed. Hence removing the June 2003 IC engine cessation of operation date from the permit. TEC intends to retire the Hookers Point Emissions Unit IDs 001-006, that is all six boilers and their related equipment, no later than January 1, 2003.

This correspondence is intended to provide a response to each specific issue raised by the Department. For your convenience, TEC has restated each point and provided a response below each specific issue.

EPCHC Issue 1

Based on the prior permitting action with the TEC's, Hookers Point facility, EPC staff would like to ensure that all the applicable sources (IC Generators) are included in this project. The project was originally considered in the absence of the temporary IC generators located within 5 miles of Hookers Point.

EPC staff believes these should have been included. In a memo dated November 16, 1994, from the Office of Air Quality Planning and Standards, it is stated, "...it is the EPA's policy that temporary and contractor operated units be included in part of the source with which they operate or support." Additionally in a phone conversation with Mr. Jim Little, May 3, 2001, he felt at least two of the IC

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generators at neighboring substations (Maritime Blvd and 11<sup>th</sup> Avenue) should have been included and possibly an additional two from the Clearview and State Road 60 sites.

At the present time it is unclear if the IC generators are still located at the respective sites. EPC staff will visit each of the four sites to verify the presence or absence of the generators. If the IC generators are still present, EPC staff requests these be considered in the construction permit application.

#### **TEC Response**

**The temporary rental generators were operated to meet summer demand and are no longer under contract to TEC or physically present on-site at the substations. Although these engines were located within a five-mile vicinity of Hookers Point, they were not contiguous with Hookers Point.**

#### **EPCHC Issue 2**

EPC staff is concerned about the duration of the construction permit and the future type of operation permit the facility will be issued. In the letter dated April 1, 2002, TEC personnel state the existing emissions units at Hooker's Point will be permanently retired January 1, 2003. Are the emission units the boilers, the IC generators, or some combination of the two? If the boilers are shut down the facility may no longer be a Title V facility and only require a minor source operation permit. Although no complaints have been received, EPC staff wish to ensure that the IC generators are properly permitted to operate in the future should TEC personnel request authorization to do so. Please request TEC personnel to clarify the statement about retiring the emission units in the April 1<sup>st</sup> letter .

#### **TEC Response**

**TEC will be retiring Hookers Point Station Emissions Unit IDs 001-006, along with any related equipment. All six boilers will be rendered incapable of firing any fuel on or before January 1, 2003. With the IC engines in operation, the facility will remain a major source and will require a Title V permit to operate.**

#### **EPCHC Issue 3**

Please have TEC submit a complete construction application package. The letter dated April 1, 2002, does not have the required signatures and has not been sealed by a professional engineer. [Rule 62-4.050(3), F.A.C.]

#### **TEC Response**

**Attached is a complete construction permit application package sealed by a professional engineer and the responsible official's signature in Attachment A to this correspondence.**

Mr. Syed Arif  
June 28, 2002  
Page 3 of 3

In the original submitted construction permit application, the manufacturers specification indicated the each IC engine uses 122.8 gallons per hour within a 3% error margin. However, based on a year of engine operations, the actual fuel usage is about 128 gallons per hour. This impacts the hours of operation as the current fuel limit of 2,713,880 gallons per year would actually limit the hours to 21,198 hours instead of the permitted 22,100 hours during any consecutive 12-month period. Therefore TEC requests that the fuel limit should be changed from 2,713,880 gallons per year to 2,828,800 gallons per year. This will not result in an increase in emissions, as the hours of operation will remain the same. With this change, the annual fuel oil consumption limit will be equivalent to the annual hours of operation.

TEC appreciates the cooperation and consideration of the DEP and EPCHC in this matter. If further questions or concerns arise pertaining to the additional information TEC has provided please contact me (813) 641-5376.

Sincerely,



Laura R. Crouch  
Manager- Air Programs  
Environmental Affairs

EA/bmr/DNL120

Enclosure

c/enc: Mr. Jerry Campbell, EPCHC  
Mr. Clair Fancy, FDEP  
Mr. Jerry Kissel - FDEP SW

## INTRODUCTION

Tampa Electric Company (TEC) operates six No. 6 oil-fired steam boilers (Units Nos. 1 through 6) at the Hookers Point Station located at 1700 Hemlock Street, Tampa, Hillsborough County, Florida. Operation of the existing steam boilers is currently authorized by Title V FINAL Permit No. 0570038-001-AV. FINAL Permit No. 0570038-001-AV was issued with an effective date of January 1, 1998, and expires on January 1, 2003.

To meet anticipated summer power demands, TEC recently installed 30 Caterpillar XQ2000 Power Modules at the Hookers Point Station. Each Power Module consists of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power output rating of 2,593 brake horsepower (bhp) at 100 percent load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100 percent load. The Caterpillar 3516B IC engines are fired exclusively with low sulfur (maximum of 0.05 weight percent sulfur) diesel fuel oil. Initial operation of the 30 IC engines was authorized by Department FINAL Permit No. 0570038-002-AC.

In correspondence to the Department dated April 1, 2002, TEC requested deletion of Department Air Permit No. 0570038-002-AC, Section III., Condition No. 15. This permit condition requires the 30 IC engines to cease operation in June 2003. In response, the Department requested submittal of a construction permit application—reference Department correspondence dated May 2, 2002.

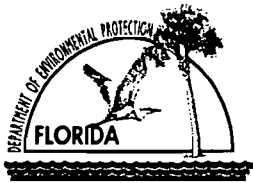
TEC plans to permanently retire existing Hookers Point Station oil-fired Units 1 through 6 no later than January 1, 2003. The purpose of this construction permit application is to request deletion of Department Air Permit No. 0570038-002-AC, Section III., Condition No. 15 to allow for continued operation of the 30 IC engines following June 2003. In addition, actual engine fuel consumption has been found to be slightly higher than the original estimate; i.e., the maximum engine fuel consumption rate has been determined to be 128 gallons

per hour compared to the original estimate of 122.8 gallons per hour. Operation of the 30 Caterpillar XQ2000 Power Modules is presently limited to no more than 22,100 engine-hours during any consecutive 12-month period. Consistent with this operating hour constraint, TEC requests that the equivalent annual fuel oil consumption limit in Department Air Permit No. 0570038-002-AC, Section III., Condition No. 12 be changed to 2,828,800 gallons per year. No other revisions to Department Air Permit No. 0570038-002-AC are requested. Specifically, no changes to the IC engine NO<sub>x</sub> hourly (53 lb/hr/engine) and annual (582 tpy for all engines) emission rates listed in Department Air Permit No. 0570038-002-AC, Section III., Condition No. 7. are requested. IC engine stack testing conducted in July 2001 demonstrated that actual IC engine NO<sub>x</sub> emission rates are well below the permit limit of 53 lb/hr. Of the five IC engines tested in July 2001, the maximum test series average NO<sub>x</sub> emission rate was 39.2 lb/hr or only 74 percent of the 53 lb/hr permit limit.

As requested by the Department, Attachment A contains a completed FDEP Application for Air Permit—Title V Source; DEP Form 62-210.900(1). Attachment B provides IC engine emission rate calculations.

**ATTACHMENT A**

**APPLICATION FOR AIR PERMIT—  
TITLE V SOURCE**



# Department of Environmental Protection

**RECEIVED**

JUL 02 2002

## Division of Air Resources Management

BUREAU OF AIR REGULATION

### APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

#### I. APPLICATION INFORMATION

##### Identification of Facility

1. Facility Owner/Company Name: <b>Tampa Electric Company</b>	
2. Site Name: <b>Hookers Point Station</b>	
3. Facility Identification Number: <b>0570038</b> [ ] Unknown	
4. Facility Location: Street Address or Other Locator: <b>1700 Hemlock Street</b> City: <b>Tampa</b> County: <b>Hillsborough</b> Zip Code: <b>33605-6660</b>	
5. Relocatable Facility? [ ] Yes [ <input checked="" type="checkbox"/> ] No	6. Existing Permitted Facility? [ <input checked="" type="checkbox"/> ] Yes [ ] No

##### Application Contact

1. Name and Title of Application Contact: <b>Dru Latchman</b> <b>Associate Engineer – Air Programs, Environmental Planning</b>	
2. Application Contact Mailing Address: Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>6499 U.S. Highway 41 North</b> City: <b>Apollo Beach</b> State: <b>FL</b> Zip Code: <b>33572-9200</b>	
3. Application Contact Telephone Numbers: Telephone: <b>(813)641 – 5034</b> Fax: <b>(813) 641-5081</b>	

##### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	



## **Purpose of Application**

### **Air Operation Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- ☐ Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- ☐ Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: \_\_\_\_\_

- ☐ Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: \_\_\_\_\_

Operation permit number to be revised: \_\_\_\_\_

- ☐ Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected: \_\_\_\_\_

- ☐ Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised: \_\_\_\_\_

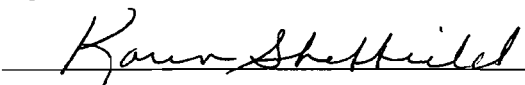
Reason for revision: \_\_\_\_\_

### **Air Construction Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- ☒ Air construction permit to construct or modify one or more emissions units.
- ☐ Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- ☐ Air construction permit for one or more existing, but unpermitted, emissions units.

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Karen Sheffield, General Manager</b>
2. Application Contact Mailing Address: Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>1700 Hemlock Street</b> City: <b>Tampa</b> State: <b>FL</b> Zip Code: <b>33605-6660</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(813) 228-1111, Ext. 35300</b> Fax: <b>(813) 641-5418</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [ ✓ ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  <div style="display: flex; justify-content: space-between;"><div style="text-align: center;"> Signature</div><div style="text-align: center;"><u>6/28/02</u> Date</div></div>

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Thomas W. Davis</b> Registration Number: <b>36777</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Environmental Consulting &amp; Technology, Inc.</b> Street Address: <b>3701 Northwest 98<sup>th</sup> Street</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32606</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(352) 332-0444</b> Fax: <b>(352) 332-6722</b>

4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ ☐ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ ☒ ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ☐ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature

Date

\* Attach any exception to certification statement.

**Scope of Application**

<b>Emissions Unit ID</b>	<b>Description of Emissions Unit</b>	<b>Permit Type</b>	<b>Processing Fee</b>
007 – 036	IC Engine/Generator Set Nos. 1 – 30	N/A	N/A

**Application Processing Fee**

Check one: ☐ Attached - Amount: \$ \_\_\_\_\_ ☒ Not Applicable

### Construction/Modification Information

1. Description of Proposed Project or Alterations:

Tampa Electric Company (TEC) has installed thirty (30) Caterpillar XQ2000 Power Modules at its existing Hookers Point Station. Each Power Module consists of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power output rating of 2,593 brake horsepower (bhp) at 100% load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100% load.

Condition No. 15 of Department Air Permit No. 0570038-002-AC requires the 30 IC engines to cease operation in June 2003. TEC plans to permanently retire existing Hookers Point Station oil-fired Units 1 through 6 no later than January 1, 2003. The purpose of this application is to request deletion of Condition No. 15 to allow for continued operation of the 30 IC engines following June 2003.

2. Projected or Actual Date of Commencement of Construction: N/A

3. Projected Date of Completion of Construction: N/A

### Application Comment

### A. GENERAL FACILITY INFORMATION

1. Facility UTM Coordinates: Zone: <b>17</b> East (km): <b>358.0</b> North (km): <b>3,091.0</b>			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): Longitude (DD/MM/SS):			
3. Governmental Facility Code: <b>0</b>	4. Facility Status Code: <b>A</b>	5. Facility Major Group SIC Code: <b>49</b>	6. Facility SIC(s): <b>4911</b>
7. Facility Comment (limit to 500 characters):			

1. Name and Title of Facility Contact: <b>Karen Sheffield, General Manager</b>
2. Application Contact Mailing Address: Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>1700 Hemlock Street</b> City: <b>Tampa</b> State: <b>FL</b> Zip Code: <b>33605-6660</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(813) 228-1111, Ext. 35300</b> Fax: <b>(813) 641-5418</b>

### Facility Regulatory Classifications

Check all that apply:

1. <input type="checkbox"/> Small Business Stationary Source?	<input type="checkbox"/> Unknown
2. <input checked="" type="checkbox"/> Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. <input type="checkbox"/> Synthetic Minor Source of Pollutants Other than HAPs?	
4. <input type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)?	
5. <input type="checkbox"/> Synthetic Minor Source of HAPs?	
6. <input type="checkbox"/> One or More Emissions Units Subject to NSPS?	
7. <input type="checkbox"/> One or More Emission Units Subject to NESHAP?	
8. <input type="checkbox"/> Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters):  <b>Facility classifications shown above apply after 1/1/03; i.e., following the permanent retirement of existing oil-fired Units 001 – 006.</b>	

### List of Applicable Regulations


## B. FACILITY POLLUTANTS

### List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		
NOX	A	N/A	582	ESCPSD	EU IDs 007 - 036
CO	SM	N/A	N/A	N/A	
SO2	SM	N/A	N/A	N/A	
VOC	SM	N/A	N/A	N/A	
HAPS	SM	N/A	N/A	N/A	

**Note: Facility pollutants shown above apply after 1/1/03; i.e., following the permanent retirement of existing oil-fired Units 001 – 006.**



## C. FACILITY SUPPLEMENTAL INFORMATION

### Supplemental Requirements

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Facility Plot Plan: <input type="checkbox"/> Attached, Document ID: <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Process Flow Diagram(s): <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
6. Supplemental Information for Construction Permit Application: <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Not Applicable
7. Supplemental Requirements Comment:  <b>Items 1 and 2 previously submitted – see Hookers Point Station initial Title V permit application.</b>

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

8. List of Proposed Insignificant Activities: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
9. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input type="checkbox"/> Not Applicable
10. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
13. Risk Management Plan Verification: <input type="checkbox"/> Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: _____) or previously submitted to DEP (Date and DEP Office: _____) <input type="checkbox"/> Plan to be submitted to CEPPO (Date required: _____) <input type="checkbox"/> Not Applicable
14. Compliance Report and Plan: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
15. Compliance Certification (Hard-copy Required): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

### III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

#### A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

##### Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
2. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>Caterpillar XQ2000 Power Module comprised of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power output rating of 2,593 brake horsepower (bhp) at 100% load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100% load. The IC engine will be fired exclusively with low sulfur diesel fuel oil.</b>			
4. Emissions Unit Identification Number:		<input type="checkbox"/> No ID <input type="checkbox"/> ID Unknown	
ID: <b>007</b>			
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
<b>A</b>		<b>49</b>	<input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

**None**

2. Control Device or Method Code(s): **N/A**

**Emissions Unit Details**

1. Package Unit:

Manufacturer: **Caterpillar**

Model Number: **XQ2000**

2. Generator Nameplate Rating: **1.825** MW

3. Incinerator Information:

Dwell Temperature:

°F

Dwell Time:

seconds

Incinerator Afterburner Temperature:

°F

**B. EMISSIONS UNIT CAPACITY INFORMATION**  
**(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	<b>17.5</b>	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:	hours/day	days/week
	weeks/year	<b>22,100</b> hours/year*
6. Operating Capacity/Schedule Comment (limit to 200 characters):		
<p><b>* Total fuel oil consumption limit of 2,828,800 gallons per year for all 30 engines combined is requested. This fuel oil consumption limit is equivalent to 22,100 engine-hours per year for all 30 engines at 100% load.</b></p>		

**C. EMISSIONS UNIT REGULATIONS**  
**(Regulated Emissions Units Only)**

**List of Applicable Regulations**

N/A	

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>ENG 1</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>N/A</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>N/A</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>13.5 feet</b>	7. Exit Diameter: <b>6 ft x 8 ft</b>	
8. Exit Temperature: <b>856 °F</b>	9. Actual Volumetric Flow Rate: <b>14,251 acfm</b>	10. Water Vapor: <b>%</b>	
11. Maximum Dry Standard Flow Rate: <b>dscfm</b>		12. Nonstack Emission Point Height: <b>feet</b>	
13. Emission Point UTM Coordinates:  Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>Exit temperature (field No. 8) and actual flow rate (Field No. 9) are averages as measured during the July 2001 emissions testing.</b>			

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(All Emissions Units)**

**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>IC engine fired with diesel fuel oil.</b>		
3. Source Classification Code (SCC): <b>20100102</b>		3. SCC Units: <b>Thousand Gallons Burned</b>
4. Maximum Hourly Rate: <b>0.128</b>	5. Maximum Annual Rate: <b>1,121.28*</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>0.05</b>	8. Maximum % Ash: <b>0.01</b>	9. Million Btu per SCC Unit: <b>137</b>
10. Segment Comment (limit to 200 characters):  <b>* Total fuel oil consumption limit of 2,828,800 gallons per year for all 30 engines combined is requested.</b>		

**Segment Description and Rate:** Segment      of     

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):		
2. Source Classification Code (SCC):		3. SCC Units:
3. Maximum Hourly Rate:	4. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
6. Maximum % Sulfur:	7. Maximum % Ash:	8. Million Btu per SCC Unit:
9. Segment Comment (limit to 200 characters):		



## F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

[illegible]

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>NOX</b>	2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>53 lb/hour</b> <b>582*</b> tons/year	4. Synthetically Limited? [ <input checked="" type="checkbox"/> ]	
5. Range of Estimated Fugitive Emissions: [    ] 1            [    ] 2            [    ] 3            _____ to _____ tons/year		
6. Emission Factor: <b>53 lb/hr</b> Reference: <b>Allowable emission rate</b>		7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  * <b>Annual rate for all 30 engines.</b>		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):		

**Allowable Emissions** Allowable Emissions   1   of   1  

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>53 lb/hr</b>	4. Equivalent Allowable Emissions: <b>53 lb/hour</b> <b>582*</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>EPA Reference Method 7E</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  * <b>Annual rate for all 30 engines.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SO2</b>	2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>0.93 lb/hour</b> <b>10.3* tons/year</b>	4. Synthetically Limited? <input checked="" type="checkbox"/>	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year		
6. Emission Factor: <b>0.93 lb/hr</b> Reference: <b>Mass Balance</b>		7. Emissions Method Code: <b>2</b>
8. Calculation of Emissions (limit to 600 characters):  <p>* Annual emission rate (all 30 engines) = (0.93 lb/hr) x (22,100 hr/yr) x (1 ton/2,000 lb)</p> <p>Annual emission rate (all 30 engines) = 10.3 ton/yr</p> <p>See Appendix B for emission rate calculations.</p>		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):		

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.05 weight % S fuel oil</b>	4. Equivalent Allowable Emissions: <b>0.93 lb/hour      10.3 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual fuel analysis</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Annual allowable emission rate is the total for all 30 engines.</b>  <b>Rule 62-210.200, F.A.C. (PTE)</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: [ <input checked="" type="checkbox"/> ] Rule [ <input type="checkbox"/> ] Other
3. Requested Allowable Opacity: Normal Conditions: <b>20</b> % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
5. Method of Compliance: <b>EPA Reference Method 9</b>	
6. Visible Emissions Comment (limit to 200 characters):  <b>Rule 62-296.320(4)(b)1., F.A.C.</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 2

2. Visible Emissions Subtype: <b>VE27</b>	2. Basis for Allowable Opacity: [ <input type="checkbox"/> ] Rule [ <input checked="" type="checkbox"/> ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: <b>27</b> % Maximum Period of Excess Opacity Allowed: <b>60</b> min/hour	
7. Method of Compliance: <b>EPA Reference Method 9</b>	
8. Visible Emissions Comment (limit to 200 characters):  <b>Excess emissions resulting during startup and shutdown shall not exceed 27% opacity for up to 2 hours in any 24 hour period per Air Permit 0570038-002-AC, Section III, Condition No. 10.</b> <b>Rule 62-210.700(1), F.A.C.</b>	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number: <span style="float: right;">Serial Number:</span>	
5. Installation Date:	6. Performance Specification Test Date:
6. Continuous Monitor Comment (limit to 200 characters):	

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number: <span style="float: right;">Serial Number:</span>	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
**(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously submitted, Date: <u>August 21, 2001</u> <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <b>Attachment B – Emission Rate Calculations</b>
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:  <p><b>Item 2 previously submitted – reference January 2001 Air Construction Permit Application, Attachment B.</b></p>

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation [ ] Attached, Document ID: _____ [ ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ ] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ [ ] Not Applicable

NOTE:

EMISSION UNITS 007 THROUGH 036 ARE IDENTICAL UNITS.

SECTION III. EMISSIONS UNIT INFORMATION PROVIDED FOR EU 007 (IC ENGINE/GENERATOR NO. 1) IS ALSO APPLICABLE TO EU 008 (IC ENGINE/GENERATOR NO. 2) THROUGH EU 036 (IC ENGINE/GENERATOR NO. 30).

EMISSIONS UNIT INFORMATION SECTIONS 2 THROUGH 7 ARE IDENTICAL TO SECTION 1, WITH THE EXCEPTION OF IDENTIFICATION NUMBERS.



**ATTACHMENT B**

**EMISSION RATE CALCULATIONS**

POTENTIAL EMISSION INVENTORY WORKSHEET					ENG 007-036	
Tampa Electric Company, Hookers Point IC Engine Project						
<b>EMISSION SOURCE TYPE</b>						
HEAVY DUTY OIL-FIRED ENGINES - CRITERIA POLLUTANTS						
<b>FACILITY AND SOURCE DESCRIPTION</b>						
Emission Source Description:		4-Cycle Rich Burn Engine				
Emission Control Method(s)/ID No.(s):		None				
Emission Point Description:		1.825 MW Engine/Generator, Caterpillar Model XQ2000 Power Module				
<b>EMISSION ESTIMATION EQUATIONS</b>						
Emission (lb/hr) = Engine Power Output (hp) x Pollutant Emission Factor (lb/hp-hr)						
Emission (ton/yr) = Engine Power Output (hp) x Pollutant Emission Factor (lb/hp-hr) x Operating Period (hrs/yr) x (1 ton/ 2,000 lb)						
Source: ECT, 2002.						
<b>INPUT DATA (PER ENGINE) AND EMISSIONS CALCULATIONS</b>						
Operating Hours:		24 Hrs/Day		7 Days/Wk		
Operating Hours:		737 Hrs/Yr (equivalent).				
Fuel Usage:		128.0 gal/hr		94,293 gal/yr (equivalent). Total fuel limited to 2,828,800 gal/yr.		
Engine Heat Input:		17.5 10 <sup>8</sup> Btu/hr (LHV)		Power Output: 1,825 kW		
Engine Power Output:		2,593 HP		Fuel Oil Sulfur Content: 0.05 weight %		
Oil Heat Content:		137,000 Btu/gal (LHV)		Heat Rate: 9,609 Btu/kW-hr		
Number of Engines:		30		Oil Consumed:		0.1280 10 <sup>3</sup> gal/hr 94.29 10 <sup>3</sup> gal/yr
Criteria Pollutant	Pollutant Emission Factors		Potential Emission Rates (Per Engine)		Potential Emission Rates (All Engines)	
	(g/hp-hr)	(lb/hp-hr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
NO <sub>x</sub>	9.22	0.02032	52.7	19.41	1,580.7	582.2
CO	0.17	0.00037	0.97	0.36	29.1	10.7
THC	0.17	0.00037	0.97	0.36	29.1	10.7
SO <sub>2</sub>	0.16	0.00036	0.93	0.34	28.0	10.3
PM/PM <sub>10</sub>	0.08	0.00019	0.48	0.18	14.4	5.3
H <sub>2</sub> SO <sub>4</sub> <sup>1</sup>	0.0023	0.0000051	0.013	0.005	0.39	0.15
<b>SOURCES OF INPUT DATA</b>						
Parameter		Data Source				
Operating Hours		ECT, 2002. Total fuel consumption for all 30 engines limited to avoid PSD review.				
Fuel Usage Data		Caterpillar, 2000.				
Engine Power Output		Caterpillar, 2000.				
Fuel Oil Sulfur Content		TEC, 2002.				
Emission Factors (except SO <sub>2</sub> and H <sub>2</sub> SO <sub>4</sub> )		Caterpillar (100% load), 2000.				
Emission Factor, SO <sub>2</sub>		Mass balance, ECT, 2002.				
Emission Factor, H <sub>2</sub> SO <sub>4</sub>		Table 1.3-1, AP-42, EPA, September 1998.				
<b>NOTES AND OBSERVATIONS</b>						
<sup>1</sup> H <sub>2</sub> SO <sub>4</sub> emissions assumes 100% conversion of SO <sub>3</sub> to H <sub>2</sub> SO <sub>4</sub> .						
<b>DATA CONTROL</b>						
Data Collected by:		T.Davis			Date: Jun-02	
Data Entered by:		T.Davis			Date: Jun-02	
Reviewed by:		D. Latchman			Date: Jun-02	

Tampa Electric Company, Hookers Point IC Engine Project  
Hazardous Air Pollutant (HAP) Potential Emission Estimates  
IC Engines - Diesel

Emission Unit ID No.	Engine Model	No. of Engines	Engine Data ( Per Engine)			
			Operating Hours (hr/yr)	Engine Rating (hp)	Heat Input (10 <sup>6</sup> Btu/hr)	Heat Input (10 <sup>6</sup> Btu/yr)
007-036	Caterpillar 3516B	30	737	2,593	17.54	12,918.2
		CAS	Uncontrolled Emission Factor (lb/10 <sup>6</sup> Btu)	Each Engine Potential Emissions (tpy)	30 Engines Potential Emissions (tpy)	
	1,3-Butadiene	106-99-0	1.56E-03	1.01E-02	3.02E-01	
	Acetaldehyde	75-07-0	1.91E-03	1.23E-02	3.70E-01	
	Acrolein	107-02-8	1.51E-04	9.75E-04	2.93E-02	
	Benzene	7-14-32	1.16E-03	7.49E-03	2.25E-01	
	Beryllium	N/A	4.67E-07	3.02E-06	9.05E-05	
	Cadmium	N/A	2.24E-05	1.45E-04	4.34E-03	
	Chromium	N/A	3.71E-06	2.40E-05	7.19E-04	
	Ethylbenzene	100-41-4	5.73E-05	3.70E-04	1.11E-02	
	Formaldehyde	50-00-0	2.08E-03	1.34E-02	4.03E-01	
	Hexane	110-54-3	9.76E-05	6.30E-04	1.89E-02	
	Lead	N/A	6.92E-06	4.47E-05	1.34E-03	
	Manganese	N/A	2.15E-05	1.39E-04	4.17E-03	
	Mercury	N/A	1.44E-06	9.30E-06	2.79E-04	
	Naphthalene	91-20-3	1.20E-03	7.75E-03	2.33E-01	
	Nickel	N/A	3.84E-06	2.48E-05	7.44E-04	
	PAH	N/A	2.73E-03	1.76E-02	5.29E-01	
	Selenium	N/A	1.84E-06	1.19E-05	3.57E-04	
	Toluene	108-88-3	6.46E-04	4.17E-03	1.25E-01	
	Xylene	1330-20-7	3.99E-04	2.58E-03	7.73E-02	
Maximum Individual HAP				0.018	0.53	
Total HAPs				0.078	2.34	

Source: ECT, 2002.

# Ringhaver



Ringhaver Equipment Co.

June 28, 2002

Ms. Drupatie Latchman  
Tampa Electric Company  
PO Box 111  
Tampa, FL 33601

Subject: Fuel Rate For Caterpillar Model 3516B Diesel Generator Set

Dear Ms. Latchman:

The fuel rate for the above generator set is approximately 123.1 gph while operating at 1825 KW. Due to a tolerance of +/- 5%, the fuel rate may vary from approximately 116.9 gph to approximately 129.3 gph. The fuel rate and tolerances are based on the conditions listed on the following page.

Please do not hesitate to call if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Obal".

Alan Obal  
Power Systems Division

-GKPN02- TMI - ENGINE AND COMP PERF

DATE: 12/07/00

09 - PACKAGE SET PERFORMANCE

TIME: 08:41:08

3516B DI TA SC DRY MANF TURBO QTY 4 PARALLEL ADEM GOV

DM4501-02

INFO CODE 08 - PERFORMANCE PARAMETERS REFERENCE \* \* \* \* \*

TM5739 - 04 GEN SET - PACKAGED - DIESEL

29 DEG C (84.2 DEG F) WHERE THE DENSITY IS 838.9 G/L (7.002

LB/GAL).

THE CORRECTED PERFORMANCE VALUES SHOWN FOR CATERPILLAR ENGINES WILL APPROXIMATE THE VALUES OBTAINED WHEN THE OBSERVED PERFORMANCE DATA IS CORRECTED TO SAE J1995, ISO 3046-2 & 8665 & 2288 & 9249 & 1585, EEC 80/1269 AND DIN70020 STANDARD REFERENCE CONDITIONS.

ENGINES ARE EQUIPPED WITH STANDARD ACCESSORIES; LUBE OIL, FUEL PUMP AND JACKET WATER PUMP. THE POWER REQUIRED TO DRIVE AUXILIARIES MUST BE DEDUCTED FROM THE GROSS OUTPUT TO ARRIVE AT THE NET POWER AVAILABLE FOR THE EXTERNAL (FLYWHEEL) LOAD. TYPICAL

PRESS <ENTER> FOR ADDITIONAL NOTES

NEXT TRAN: INFO CODE ( 08 ) UNIT TYPE ( E )

HLP-F1 ACF-F3 PGM-F4 INQ-F5

IDX-F9

-GKPN02- TMI - ENGINE AND COMP PERF DATE: 12/07/00  
09 - PACKAGE SET PERFORMANCE TIME: 08:40:58  
3516B DI TA SC DRY MANF TURBO QTY 4 PARALLEL ADEM GOV  
DM4501-02  
INFO CODE 08 - PERFORMANCE PARAMETERS REFERENCE \* \* \* \* \*  
TM5739 - 04 GEN SET - PACKAGED - DIESEL  
FUEL RATE +/- 5%  
HEAT REJECTION +/- 5%  
HEAT REJECTION EXHAUST ONLY +/- 10%

CONDITIONS:

ENGINE PERFORMANCE IS CORRECTED TO INLET AIR STANDARD CONDITIONS  
OF 99 KPA (29.31 IN HG) AND 25 DEG C (77 DEG F).

THESE VALUES CORRESPOND TO THE STANDARD ATMOSPHERIC PRESSURE AND  
TEMPERATURE IN ACCORDANCE WITH SAE J1995. ALSO INCLUDED IS A  
CORRECTION TO STANDARD FUEL GRAVITY OF 35 DEGREES API HAVING A  
LOWER HEATING VALUE OF 42,780 KJ/KG (18,390 BTU/LB) WHEN USED AT

PRESS <ENTER> FOR ADDITIONAL NOTES

                    NEXT TRAN: INFO CODE ( 08 ) UNIT TYPE ( E )  
HLP-F1 ACF-F3 PGM-F4 INQ-F5                    IDX-F9



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

May 2, 2002

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Dru Latchman, Associate Engineer  
Environmental Affairs  
Tampa Electric Company  
P.O. Box 111  
Tampa, Florida 33601-0111

Re: Request for Additional Information  
DEP File No. 0570038-004-AC  
Hookers Point Station – Temporary Mobile Generation Project

Dear Ms. Latchman:

On April 3, 2002, the Department received your letter for a modification to the air construction permit for the existing Hookers Point Facility. This modification is intended to extend the operational period of the thirty internal combustion engines beyond June 2003. The application is incomplete. In order to continue processing your application, the Department will need the additional information requested below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate pages of the application form.

- 1) Enclosed are comments submitted by Hillsborough County Environmental Protection Commission (HCEPC) in regards to the completeness issues for this project. Please submit the information as requested by HCEPC to the Department's Bureau of Air Regulation.

The Department will resume processing this application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. A new certification statement by the authorized representative or responsible official must accompany any material changes to the application. Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within 90 days.

If you have any questions regarding this matter, please call Mr. Syed Arif, P.E. at 850/921-9528 or Mr. Rob Kalch, of HCEPC at 813/272-5530. Ext. 1288

Sincerely,

Syed Arif, P.E. II  
New Source Review Section

SA/sa

Enclosure

cc: J. Kissel, DEP SWD  
R. Kalch, HCEPC

"More Protection, Less Process"

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RICHARD D. GARRITY, Ph.D.



ADMINISTRATIVE OFFICES,  
LEGAL & WATER MANAGEMENT DIVISION  
THE ROGER P. STEWART ENVIRONMENTAL CENTER  
1900 - 9TH AVENUE • TAMPA, FLORIDA 33605  
PHONE (813) 272-5960 • FAX (813) 272-5157

AIR MANAGEMENT DIVISION  
FAX (813) 272-5605

WASTE MANAGEMENT DIVISION  
FAX (813) 276-2256

WETLANDS MANAGEMENT DIVISION  
FAX (813) 272-7144

1410 N. 21ST STREET • TAMPA, FLORIDA 33605

## BEST AVAILABLE COPY

May 2, 2002

Syed Arif

Department of Environmental Protection, Bureau of Air Regulation  
2600 Blair Stone Road  
Mail Station 5505  
Tallahassee, FL 32399-2400

Re: Comments on TEC, Hookers Point  
Permit No.: 0570038-004-AC

Dear Mr. Arif:

The Environmental Protection Commission (EPC) of Hillsborough County has reviewed the TEC request to remove the June 2003 deadline for the discontinuation of the internal combustion generators at Hookers Point. After reviewing the proposed project, EPC staff has the following comments for your consideration:

1. Based on the prior permitting action with the TEC's, Hookers Point facility, EPC staff would like to ensure that all the applicable sources (IC Generators) are included in this project. The project was originally considered in the absence of the temporary IC generators located within 5 miles of Hookers Point.

EPC staff believe these should have been included. In a memo dated November 16, 1994, from the Office of Air Quality Planning and Standards, it is stated, "...it is the EPA's policy that temporary and contractor operated units be included in part of the source with which they operate or support." Additionally in a phone conversation with Mr. Jim Little, May 3, 2001, he felt at least two of the IC generators at neighboring substations (Maritime Blvd and 11<sup>th</sup> Avenue) should have been included and possibly an additional two from the Clearview and State Road 60 sites.

At the present time it is unclear if the IC generators are still located at the respective sites. EPC staff will visit each of the four sites to verify the presence or absence of the generators. If the IC generators are still present, EPC

[www.epchc.org](http://www.epchc.org)

E-Mail: [epcinfo@epchc.org](mailto:epcinfo@epchc.org)





## BEST AVAILABLE COPY

Mr. Syed Arif  
May 2, 2002

Page Two

staff requests these be considered in the construction permit application.

2. EPC staff is concerned about the duration of the construction permit and the future type of operation permit the facility will be issued. In the letter dated April 1, 2002, TEC personnel state the existing emissions units at Hooker's Point will be permanently retired January 1, 2003. Are the emission units the boilers, the IC generators, or some combination of the two? If the boilers are shut down the facility may no longer be a Title V facility and only require a minor source operation permit. Although no complaints have been received, EPC staff wish to ensure that the IC generators are properly permitted to operate in the future should TEC personnel request authorization to do so. Please request TEC personnel to clarify the statement about retiring the emission units in the April 1<sup>st</sup> letter.
3. Please have TEC submit a complete construction application package. The letter dated April 1, 2002, does not have the required signatures and has not been sealed by a professional engineer. [Rule 62-4.050(3), F.A.C.]

EPC staff appreciates the opportunity to comment on this project and wish to thank you for your consideration of these items. If you have any questions, please contact Rob Kalch or Alice Harman at (813) 272-5530.

Sincerely,



Jerry Campbell, P.E.  
Director  
Air Management Division

rsk

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Street, Apt. No., or P.O. Box No.	PO Box 111
City, State, ZIP+4	Tampa, FL 33601-0111

PS Form 3800, January 2001

See Reverse for Instructions

7001 0320 0001 3692 8949

**PUBLIC NOTICE OF INTENT  
TO ISSUE AIR  
CONSTRUCTION PERMIT  
MODIFICATION**

STATE OF FLORIDA  
DEPARTMENT OF  
ENVIRONMENTAL  
PROTECTION

DEP File No.  
0570038-004-AC

Hookers Point Station  
Tampa Electric Company  
Hillsborough County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Tampa Electric Company (TEC) for the Hookers Point Station located in Hillsborough County. An air construction permit was issued to TEC in April 2001 for installation of 30 (thirty) internal combustion (IC) diesel engines. This permit modification allows for continued operation of the 30 IC engines following June 2003 and permanent shutdown of Boilers 1 through 6 by January 1, 2003. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's mailing address is: Tampa Electric Company, Post Office Box 111, Tampa, Florida 33601-0111.

During the original permitting in 2001, the Department applied an emissions cap on the existing boilers 1-6 to insure permanent and enforceable reductions of actual emissions. This allowed the installation of IC engines to "net out" of PSD review. The reduction in emissions from Boilers 1-6 will be greater than previously estimated due to their permanent shutdown. The installation of the IC units will become permanent. Boilers 1-6 were fired on residual fuel oil. The IC engines are restricted to 0.05 percent sulfur diesel fuel.

The Department will issue the Final permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit modification issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue PSD permit modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the 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 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or

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

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

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

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

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental  
Protection Bureau of Air  
Regulation  
Suite 4,  
111 S. Magnolia Drive  
Tallahassee, Florida, 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979

Dept. of Environmental  
Protection Southwest  
District  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8218  
Telephone: 813/744-6100  
Fax: 813/744-6084

Hillsborough County  
Environmental Protection  
Commission  
1900 Ninth Avenue  
Tampa, Florida 33605  
Telephone: 813/272-5960  
Fax: 813/272-5157

The complete project file includes the application, Draft permit modification, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.  
3640. 8/21/02

**HOOKERS POINT STATION  
INTERNAL COMBUSTION ENGINES  
AIR CONSTRUCTION PERMIT APPLICATION**

**Prepared for:**



**TAMPA ELECTRIC  
Tampa, Florida**

**Prepared by:**



***Environmental Consulting & Technology, Inc.***

*3701 Northwest 98<sup>th</sup> Street  
Gainesville, Florida 32606*

**ECT No. 001099-0100**

**June 2002**

## INTRODUCTION

Tampa Electric Company (TEC) operates six No. 6 oil-fired steam boilers (Units Nos. 1 through 6) at the Hookers Point Station located at 1700 Hemlock Street, Tampa, Hillsborough County, Florida. Operation of the existing steam boilers is currently authorized by Title V FINAL Permit No. 0570038-001-AV. FINAL Permit No. 0570038-001-AV was issued with an effective date of January 1, 1998, and expires on January 1, 2003.

To meet anticipated summer power demands, TEC recently installed 30 Caterpillar XQ2000 Power Modules at the Hookers Point Station. Each Power Module consists of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power output rating of 2,593 brake horsepower (bhp) at 100 percent load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100 percent load. The Caterpillar 3516B IC engines are fired exclusively with low sulfur (maximum of 0.05 weight percent sulfur) diesel fuel oil. Initial operation of the 30 IC engines was authorized by Department FINAL Permit No. 0570038-002-AC.

In correspondence to the Department dated April 1, 2002, TEC requested deletion of Department Air Permit No. 0570038-002-AC, Section III., Condition No. 15. This permit condition requires the 30 IC engines to cease operation in June 2003. In response, the Department requested submittal of a construction permit application—reference Department correspondence dated May 2, 2002.

TEC plans to permanently retire existing Hookers Point Station oil-fired Units 1 through 6 no later than January 1, 2003. The purpose of this construction permit application is to request deletion of Department Air Permit No. 0570038-002-AC, Section III., Condition No. 15 to allow for continued operation of the 30 IC engines following June 2003. In addition, actual engine fuel consumption has been found to be slightly higher than the original estimate; i.e., the maximum engine fuel consumption rate has been determined to be 128 gallons

per hour compared to the original estimate of 122.8 gallons per hour. Operation of the 30 Caterpillar XQ2000 Power Modules is presently limited to no more than 22,100 engine-hours during any consecutive 12-month period. Consistent with this operating hour constraint, TEC requests that the equivalent annual fuel oil consumption limit in Department Air Permit No. 0570038-002-AC, Section III., Condition No. 12 be changed to 2,828,800 gallons per year. No other revisions to Department Air Permit No. 0570038-002-AC are requested. Specifically, no changes to the IC engine NO<sub>x</sub> hourly (53 lb/hr/engine) and annual (582 tpy for all engines) emission rates listed in Department Air Permit No. 0570038-002-AC, Section III., Condition No. 7. are requested. IC engine stack testing conducted in July 2001 demonstrated that actual IC engine NO<sub>x</sub> emission rates are well below the permit limit of 53 lb/hr. Of the five IC engines tested in July 2001, the maximum test series average NO<sub>x</sub> emission rate was 39.2 lb/hr or only 74 percent of the 53 lb/hr permit limit.

As requested by the Department, Attachment A contains a completed FDEP Application for Air Permit—Title V Source; DEP Form 62-210.900(1). Attachment B provides IC engine emission rate calculations.

**ATTACHMENT A**

**APPLICATION FOR AIR PERMIT—  
TITLE V SOURCE**



# Department of Environmental Protection

RECEIVED

Division of Air Resources Management

JUL 02 2002

## APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

DEPARTMENT OF AIR REGULATION

### I. APPLICATION INFORMATION

#### Identification of Facility

1. Facility Owner/Company Name: <b>Tampa Electric Company</b>	
2. Site Name: <b>Hookers Point Station</b>	
3. Facility Identification Number: <b>0570038</b> [ ] Unknown	
4. Facility Location: Street Address or Other Locator: <b>1700 Hemlock Street</b> City: <b>Tampa</b> County: <b>Hillsborough</b> Zip Code: <b>33605-6660</b>	
5. Relocatable Facility? [ ] Yes [ <input checked="" type="checkbox"/> ] No	6. Existing Permitted Facility? [ <input checked="" type="checkbox"/> ] Yes [ ] No

#### Application Contact

1. Name and Title of Application Contact: <b>Dru Latchman</b> <b>Associate Engineer – Air Programs, Environmental Planning</b>	
2. Application Contact Mailing Address: Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>6499 U.S. Highway 41 North</b> City: <b>Apollo Beach</b> State: <b>FL</b> Zip Code: <b>33572-9200</b>	
3. Application Contact Telephone Numbers: Telephone: <b>(813) 641 – 5034</b> Fax: <b>(813) 641-5081</b>	

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	



## **Purpose of Application**

### **Air Operation Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

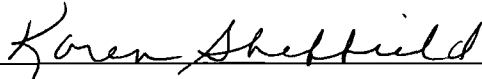
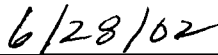
- ☐ Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- ☐ Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.
- Current construction permit number: \_\_\_\_\_
- ☐ Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.
- Current construction permit number: \_\_\_\_\_
- Operation permit number to be revised: \_\_\_\_\_
- ☐ Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)
- Operation permit number to be revised/corrected: \_\_\_\_\_
- ☐ Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.
- Operation permit number to be revised: \_\_\_\_\_
- Reason for revision: \_\_\_\_\_

### **Air Construction Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- ☒ Air construction permit to construct or modify one or more emissions units.
- ☐ Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- ☐ Air construction permit for one or more existing, but unpermitted, emissions units.

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Karen Sheffield, General Manager</b>
2. Application Contact Mailing Address: Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>1700 Hemlock Street</b> City: <b>Tampa</b> State: <b>FL</b> Zip Code: <b>33605-6660</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(813) 228-1111, Ext. 35300</b> Fax: <b>(813) 641-5418</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [ ✓ ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  <div style="display: flex; justify-content: space-between;"><div style="text-align: center;"> _____ Signature</div><div style="text-align: center;"> _____ Date</div></div>

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Thomas W. Davis</b> Registration Number: <b>36777</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Environmental Consulting &amp; Technology, Inc.</b> Street Address: <b>3701 Northwest 98<sup>th</sup> Street</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32606</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(352) 332-0444</b> Fax: <b>(352) 332-6722</b>

4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ ✓ ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature

Date

6/26/02

\* Attach any exception to certification statement.

**Scope of Application**

<b>Emissions Unit ID</b>	<b>Description of Emissions Unit</b>	<b>Permit Type</b>	<b>Processing Fee</b>
007 – 036	IC Engine/Generator Set Nos. 1 – 30	N/A	N/A

**Application Processing Fee**

Check one: ☐ Attached - Amount: \$ \_\_\_\_\_ ☒ Not Applicable

### Construction/Modification Information

1. Description of Proposed Project or Alterations:

Tampa Electric Company (TEC) has installed thirty (30) Caterpillar XQ2000 Power Modules at its existing Hookers Point Station. Each Power Module consists of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power output rating of 2,593 brake horsepower (bhp) at 100% load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100% load.

Condition No. 15 of Department Air Permit No. 0570038-002-AC requires the 30 IC engines to cease operation in June 2003. TEC plans to permanently retire existing Hookers Point Station oil-fired Units 1 through 6 no later than January 1, 2003. The purpose of this application is to request deletion of Condition No. 15 to allow for continued operation of the 30 IC engines following June 2003.

2. Projected or Actual Date of Commencement of Construction: N/A

3. Projected Date of Completion of Construction: N/A

### Application Comment

## A. GENERAL FACILITY INFORMATION

1. Facility UTM Coordinates: Zone: <b>17</b> East (km): <b>358.0</b> North (km): <b>3,091.0</b>			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): Longitude (DD/MM/SS):			
3. Governmental Facility Code: <b>0</b>	4. Facility Status Code: <b>A</b>	5. Facility Major Group SIC Code: <b>49</b>	6. Facility SIC(s): <b>4911</b>
7. Facility Comment (limit to 500 characters):			

1. Name and Title of Facility Contact: <b>Karen Sheffield, General Manager</b>
2. Application Contact Mailing Address: Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>1700 Hemlock Street</b> City: <b>Tampa</b> State: <b>FL</b> Zip Code: <b>33605-6660</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(813) 228-1111, Ext. 35300</b> Fax: <b>(813) 641-5418</b>

### Facility Regulatory Classifications

Check all that apply:

1. <input type="checkbox"/> Small Business Stationary Source?	<input type="checkbox"/> Unknown
2. <input checked="" type="checkbox"/> Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. <input type="checkbox"/> Synthetic Minor Source of Pollutants Other than HAPs?	
4. <input type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)?	
5. <input type="checkbox"/> Synthetic Minor Source of HAPs?	
6. <input type="checkbox"/> One or More Emissions Units Subject to NSPS?	
7. <input type="checkbox"/> One or More Emission Units Subject to NESHAP?	
8. <input type="checkbox"/> Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters):  <b>Facility classifications shown above apply after 1/1/03; i.e., following the permanent retirement of existing oil-fired Units 001 – 006.</b>	

### List of Applicable Regulations


## B. FACILITY POLLUTANTS

### List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		
<b>NOX</b>	<b>A</b>	<b>N/A</b>	<b>582</b>	<b>ESCPSD</b>	<b>EU IDs 007 - 036</b>
<b>CO</b>	<b>SM</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
<b>SO2</b>	<b>SM</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
<b>VOC</b>	<b>SM</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
<b>HAPS</b>	<b>SM</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	

**Note: Facility pollutants shown above apply after 1/1/03; i.e., following the permanent retirement of existing oil-fired Units 001 – 006.**



## C. FACILITY SUPPLEMENTAL INFORMATION

### Supplemental Requirements

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Facility Plot Plan: <input type="checkbox"/> Attached, Document ID: <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Process Flow Diagram(s): <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
6. Supplemental Information for Construction Permit Application: <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Not Applicable
7. Supplemental Requirements Comment:  <b>Items 1 and 2 previously submitted – see Hookers Point Station initial Title V permit application.</b>

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

8. List of Proposed Insignificant Activities: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
9. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input type="checkbox"/> Not Applicable
10. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
13. Risk Management Plan Verification: <input type="checkbox"/> Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: _____) or previously submitted to DEP (Date and DEP Office: _____) <input type="checkbox"/> Plan to be submitted to CEPPO (Date required: _____) <input type="checkbox"/> Not Applicable
14. Compliance Report and Plan: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
15. Compliance Certification (Hard-copy Required): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

### III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

#### A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

##### Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
2. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Caterpillar XQ2000 Power Module comprised of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power output rating of 2,593 brake horsepower (bhp) at 100% load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100% load. The IC engine will be fired exclusively with low sulfur diesel fuel oil.			
4. Emissions Unit Identification Number:		<input type="checkbox"/> No ID <input type="checkbox"/> ID Unknown	
ID: 007			
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A		49	<input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			

## Emissions Unit Information Section 1 of 30

### Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

None

2. Control Device or Method Code(s): N/A

### Emissions Unit Details

1. Package Unit:

Manufacturer: **Caterpillar**

Model Number: **XQ2000**

2. Generator Nameplate Rating: **1.825** MW

3. Incinerator Information:

Dwell Temperature:

°F

Dwell Time:

seconds

Incinerator Afterburner Temperature:

°F

**B. EMISSIONS UNIT CAPACITY INFORMATION**  
**(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	<b>17.5</b>	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:	hours/day	days/week
	weeks/year	<b>22,100 hours/year*</b>
6. Operating Capacity/Schedule Comment (limit to 200 characters):  <p><b>* Total fuel oil consumption limit of 2,828,800 gallons per year for all 30 engines combined is requested. This fuel oil consumption limit is equivalent to 22,100 engine-hours per year for all 30 engines at 100% load.</b></p>		

### C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

### List of Applicable Regulations

[illegible]

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>ENG 1</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>N/A</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>N/A</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>13.5 feet</b>	7. Exit Diameter: <b>6 ft x 8 ft</b>	
8. Exit Temperature: <b>856 °F</b>	9. Actual Volumetric Flow Rate: <b>14,251 acfm</b>	10. Water Vapor: <b>%</b>	
11. Maximum Dry Standard Flow Rate: <b>dscfm</b>		12. Nonstack Emission Point Height: <b>feet</b>	
13. Emission Point UTM Coordinates:  Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>Exit temperature (field No. 8) and actual flow rate (Field No. 9) are averages as measured during the July 2001 emissions testing.</b>			

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(All Emissions Units)**

**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>IC engine fired with diesel fuel oil.</b>		
3. Source Classification Code (SCC): <b>20100102</b>		3. SCC Units: <b>Thousand Gallons Burned</b>
4. Maximum Hourly Rate: <b>0.128</b>	5. Maximum Annual Rate: <b>1,121.28*</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>0.05</b>	8. Maximum % Ash: <b>0.01</b>	9. Million Btu per SCC Unit: <b>137</b>
10. Segment Comment (limit to 200 characters):  <b>* Total fuel oil consumption limit of 2,828,800 gallons per year for all 30 engines combined is requested.</b>		

**Segment Description and Rate:** Segment      of     

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):  		
2. Source Classification Code (SCC):		3. SCC Units:
3. Maximum Hourly Rate:	4. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
6. Maximum % Sulfur:	7. Maximum % Ash:	8. Million Btu per SCC Unit:
9. Segment Comment (limit to 200 characters):  		



**F. EMISSIONS UNIT POLLUTANTS**  
**(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>1 – NOX</b>			<b>EL</b>
<b>2 – SO2</b>			<b>WP</b>

**Emissions Unit Information Section 1 of 30**

**Pollutant Detail Information Page 1 of 2**

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>NOX</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>53 lb/hour</b> <b>582*</b> tons/year		4. Synthetically Limited? [ <input checked="" type="checkbox"/> ]	
5. Range of Estimated Fugitive Emissions: [    ] 1            [    ] 2            [    ] 3            _____ to _____ tons/year			
6. Emission Factor: <b>53 lb/hr</b> Reference: <b>Allowable emission rate</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>* Annual rate for all 30 engines.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions   1   of   1  

1. Basis for Allowable Emissions Code: <b>ESCPD</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>53 lb/hr</b>		4. Equivalent Allowable Emissions: <b>53 lb/hour</b> <b>582*</b> tons/year	
5. Method of Compliance (limit to 60 characters): <b>EPA Reference Method 7E</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>* Annual rate for all 30 engines.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SO2</b>	2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>0.93 lb/hour</b> <b>10.3* tons/year</b>	4. Synthetically Limited? [ <input checked="" type="checkbox"/> ]	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year		
6. Emission Factor: <b>0.93 lb/hr</b> Reference: <b>Mass Balance</b>		7. Emissions Method Code: <b>2</b>
8. Calculation of Emissions (limit to 600 characters):  * Annual emission rate (all 30 engines) = (0.93 lb/hr) x (22,100 hr/yr) x (1 ton/2,000 lb)  Annual emission rate (all 30 engines) = 10.3 ton/yr  See Appendix B for emission rate calculations.		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  		

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.05 weight % S fuel oil</b>	4. Equivalent Allowable Emissions: <b>0.93 lb/hour      10.3 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual fuel analysis</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Annual allowable emission rate is the total for all 30 engines.</b>  <b>Rule 62-210.200, F.A.C. (PTE)</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: [ <input checked="" type="checkbox"/> ] Rule [ <input type="checkbox"/> ] Other
3. Requested Allowable Opacity: Normal Conditions: <b>20 %</b> Exceptional Conditions: <b>%</b> Maximum Period of Excess Opacity Allowed: <b>min/hour</b>	
5. Method of Compliance: <b>EPA Reference Method 9</b>	
6. Visible Emissions Comment (limit to 200 characters):  <b>Rule 62-296.320(4)(b)1., F.A.C.</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 2

2. Visible Emissions Subtype: <b>VE27</b>	2. Basis for Allowable Opacity: [ <input type="checkbox"/> ] Rule [ <input checked="" type="checkbox"/> ] Other
3. Requested Allowable Opacity: Normal Conditions: <b>%</b> Exceptional Conditions: <b>27 %</b> Maximum Period of Excess Opacity Allowed: <b>60 min/hour</b>	
7. Method of Compliance: <b>EPA Reference Method 9</b>	
8. Visible Emissions Comment (limit to 200 characters):  <b>Excess emissions resulting during startup and shutdown shall not exceed 27% opacity for up to 2 hours in any 24 hour period per Air Permit 0570038-002-AC, Section III, Condition No. 10.</b> <b>Rule 62-210.700(1), F.A.C.</b>	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
6. Continuous Monitor Comment (limit to 200 characters):	

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
**(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously submitted, Date: <u>August 21, 2001</u> <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <b>Attachment B – Emission Rate Calculations</b>
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:  <p><b>Item 2 previously submitted – reference January 2001 Air Construction Permit Application, Attachment B.</b></p>

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation [ ] Attached, Document ID: _____ [ ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ ] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ [ ] Not Applicable

NOTE:

EMISSION UNITS 007 THROUGH 036 ARE IDENTICAL UNITS.

SECTION III. EMISSIONS UNIT INFORMATION PROVIDED FOR EU 007 (IC ENGINE/GENERATOR NO. 1) IS ALSO APPLICABLE TO EU 008 (IC ENGINE/GENERATOR NO. 2) THROUGH EU 036 (IC ENGINE/GENERATOR NO. 30).

EMISSIONS UNIT INFORMATION SECTIONS 2 THROUGH 7 ARE IDENTICAL TO SECTION 1, WITH THE EXCEPTION OF IDENTIFICATION NUMBERS.



**ATTACHMENT B**

**EMISSION RATE CALCULATIONS**

# POTENTIAL EMISSION INVENTORY WORKSHEET

Tampa Electric Company, Hookers Point IC Engine Project

ENG  
007-036

## EMISSION SOURCE TYPE

HEAVY DUTY OIL-FIRED ENGINES - CRITERIA POLLUTANTS

## FACILITY AND SOURCE DESCRIPTION

Emission Source Description: 4-Cycle Rich Burn Engine  
Emission Control Method(s)/ID No.(s): None  
Emission Point Description: 1.825 MW Engine/Generator, Caterpillar Model XQ2000 Power Module

## EMISSION ESTIMATION EQUATIONS

Emission (lb/hr) = Engine Power Output (hp) x Pollutant Emission Factor (lb/hp-hr)  
Emission (ton/yr) = Engine Power Output (hp) x Pollutant Emission Factor (lb/hp-hr) x Operating Period (hrs/yr) x (1 ton/ 2,000 lb)

Source: ECT, 2002.

## INPUT DATA (PER ENGINE) AND EMISSIONS CALCULATIONS

Operating Hours: 24 Hrs/Day 7 Days/Wk  
Operating Hours: 737 Hrs/Yr (equivalent).  
Fuel Usage: 128.0 gal/hr 94,293 gal/yr (equivalent). Total fuel limited to 2,828,800 gal/yr.  
Engine Heat Input: 17.5 10<sup>6</sup> Btu/hr (LHV) Power Output: 1,825 kW  
Engine Power Output: 2,593 HP Fuel Oil Sulfur Content: 0.05 weight %  
Oil Heat Content: 137,000 Btu/gal (LHV) Heat Rate: 9,609 Btu/kW-hr  
Number of Engines: 30 Oil Consumed: 0.1280 10<sup>3</sup> gal/hr 94.29 10<sup>3</sup> gal/yr

Criteria Pollutant	Pollutant Emission Factors		Potential Emission Rates (Per Engine)		Potential Emission Rates (All Engines)	
	(g/hp-hr)	(lb/hp-hr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
NO <sub>x</sub>	9.22	0.02032	52.7	19.41	1,580.7	582.2
CO	0.17	0.00037	0.97	0.36	29.1	10.7
THC	0.17	0.00037	0.97	0.36	29.1	10.7
SO <sub>2</sub>	0.16	0.00036	0.93	0.34	28.0	10.3
PM/PM <sub>10</sub>	0.08	0.00019	0.48	0.18	14.4	5.3
H <sub>2</sub> SO <sub>4</sub> <sup>1</sup>	0.0023	0.0000051	0.013	0.005	0.39	0.15

## SOURCES OF INPUT DATA

Parameter	Data Source
Operating Hours	ECT, 2002. Total fuel consumption for all 30 engines limited to avoid PSD review.
Fuel Usage Data	Caterpillar, 2000.
Engine Power Output	Caterpillar, 2000.
Fuel Oil Sulfur Content	TEC, 2002.
Emission Factors (except SO <sub>2</sub> and H <sub>2</sub> SO <sub>4</sub> )	Caterpillar (100% load), 2000.
Emission Factor, SO <sub>2</sub>	Mass balance, ECT, 2002.
Emission Factor, H <sub>2</sub> SO <sub>4</sub>	Table 1.3-1, AP-42, EPA, September 1998.

## NOTES AND OBSERVATIONS

<sup>1</sup> H<sub>2</sub>SO<sub>4</sub> emissions assumes 100% conversion of SO<sub>3</sub> to H<sub>2</sub>SO<sub>4</sub>.

## DATA CONTROL

Data Collected by: T.Davis Date: Jun-02  
Data Entered by: T.Davis Date: Jun-02  
Reviewed by: D. Latchman Date: Jun-02

Tampa Electric Company, Hookers Point IC Engine Project  
Hazardous Air Pollutant (HAP) Potential Emission Estimates  
IC Engines - Diesel

Emission Unit ID No.	Engine Model	No. of Engines	Engine Data ( Per Engine)			
			Operating Hours (hr/yr)	Engine Rating (hp)	Heat Input (10 <sup>6</sup> Btu/hr)	Heat Input (10 <sup>6</sup> Btu/yr)
007-036	Caterpillar 3516B	30	737	2,593	17.54	12,918.2
			Uncontrolled Emission Factor (lb/10 <sup>6</sup> Btu)	Each Engine Potential Emissions (tpy)	30 Engines Potential Emissions (tpy)	
HAP			CAS			
	1,3-Butadiene	106-99-0	1.56E-03	1.01E-02	3.02E-01	
	Acetaldehyde	75-07-0	1.91E-03	1.23E-02	3.70E-01	
	Acrolein	107-02-8	1.51E-04	9.75E-04	2.93E-02	
	Benzene	7-14-32	1.16E-03	7.49E-03	2.25E-01	
	Beryllium	N/A	4.67E-07	3.02E-06	9.05E-05	
	Cadmium	N/A	2.24E-05	1.45E-04	4.34E-03	
	Chromium	N/A	3.71E-06	2.40E-05	7.19E-04	
	Ethylbenzene	100-41-4	5.73E-05	3.70E-04	1.11E-02	
	Formaldehyde	50-00-0	2.08E-03	1.34E-02	4.03E-01	
	Hexane	110-54-3	9.76E-05	6.30E-04	1.89E-02	
	Lead	N/A	6.92E-06	4.47E-05	1.34E-03	
	Manganese	N/A	2.15E-05	1.39E-04	4.17E-03	
	Mercury	N/A	1.44E-06	9.30E-06	2.79E-04	
	Naphthalene	91-20-3	1.20E-03	7.75E-03	2.33E-01	
	Nickel	N/A	3.84E-06	2.48E-05	7.44E-04	
	PAH	N/A	2.73E-03	1.76E-02	5.29E-01	
	Selenium	N/A	1.84E-06	1.19E-05	3.57E-04	
	Toluene	108-88-3	6.46E-04	4.17E-03	1.25E-01	
	Xylene	1330-20-7	3.99E-04	2.58E-03	7.73E-02	
Maximum Individual HAP				0.018	0.53	
Total HAPs				0.078	2.34	

Source: ECT, 2002.

# Ringhaver



Ringhaver Equipment Co.

June 28, 2002

Ms. Drupatie Latchman  
Tampa Electric Company  
PO Box 111  
Tampa, FL 33601

Subject: Fuel Rate For Caterpillar Model 3516B Diesel Generator Set

Dear Ms. Latchman:

The fuel rate for the above generator set is approximately 123.1 gph while operating at 1825 KW. Due to a tolerance of +/- 5%, the fuel rate may vary from approximately 116.9 gph to approximately 129.3 gph. The fuel rate and tolerances are based on the conditions listed on the following page.

Please do not hesitate to call if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Obal", written in a cursive style.

Alan Obal  
Power Systems Division

-GKPN02- TMI - ENGINE AND COMP PERF DATE: 12/07/00  
09 - PACKAGE SET PERFORMANCE TIME: 08:41:08  
3516B DI TA SC DRY MANF TURBO QTY 4 PARALLEL ADEM GOV  
DM4501-02  
INFO CODE 08 - PERFORMANCE PARAMETERS REFERENCE \* \* \* \* \*  
TM5739 - 04 GEN SET - PACKAGED - DIESEL  
29 DEG C (84.2 DEG F) WHERE THE DENSITY IS 838.9 G/L (7.002  
LB/GAL).

THE CORRECTED PERFORMANCE VALUES SHOWN FOR CATERPILLAR ENGINES WILL  
APPROXIMATE THE VALUES OBTAINED WHEN THE OBSERVED PERFORMANCE  
DATA IS CORRECTED TO SAE J1995, ISO 3046-2 & 8665 & 2288 & 9249 &  
1585, EEC 80/1269 AND DIN70020 STANDARD REFERENCE CONDITIONS.

ENGINES ARE EQUIPPED WITH STANDARD ACCESSORIES; LUBE OIL, FUEL  
PUMP AND JACKET WATER PUMP. THE POWER REQUIRED TO DRIVE  
AUXILIARIES MUST BE DEDUCTED FROM THE GROSS OUTPUT TO ARRIVE AT THE  
NET POWER AVAILABLE FOR THE EXTERNAL (FLYWHEEL) LOAD. TYPICAL

PRESS <ENTER> FOR ADDITIONAL NOTES

NEXT TRAN: INFO CODE ( 08 ) UNIT TYPE ( E )  
HLP-F1 ACF-F3 PGM-F4 INQ-F5 IDX-F9

-GKPN02- TMI - ENGINE AND COMP PERF DATE: 12/07/00  
09 - PACKAGE SET PERFORMANCE TIME: 08:40:58  
3516B DI TA SC DRY MANF TURBO QTY 4 PARALLEL ADEM GOV  
DM4501-02  
INFO CODE 08 - PERFORMANCE PARAMETERS REFERENCE \* \* \* \* \*  
TM5739 - 04 GEN SET - PACKAGED - DIESEL  
FUEL RATE +/- 5%  
HEAT REJECTION +/- 5%  
HEAT REJECTION EXHAUST ONLY +/- 10%

CONDITIONS:

ENGINE PERFORMANCE IS CORRECTED TO INLET AIR STANDARD CONDITIONS  
OF 99 KPA (29.31 IN HG) AND 25 DEG C (77 DEG F).

THESE VALUES CORRESPOND TO THE STANDARD ATMOSPHERIC PRESSURE AND  
TEMPERATURE IN ACCORDANCE WITH SAE J1995. ALSO INCLUDED IS A  
CORRECTION TO STANDARD FUEL GRAVITY OF 35 DEGREES API HAVING A  
LOWER HEATING VALUE OF 42,780 KJ/KG (18,390 BTU/LB) WHEN USED AT

PRESS <ENTER> FOR ADDITIONAL NOTES

                  NEXT TRAN: INFO CODE ( 08 ) UNIT TYPE ( E )  
HLP-F1 ACF-F3 PGM-F4 INQ-F5                  IDX-F9

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark  
Here

Sent To	
Dru Latchman	
Street, Apt. No., or P.O. Box No.	
Box 111	
City, State, ZIP+4	
Tampa, FL 33601-0111	

PS Form 3800, January 2001

See Reverse for Instructions

7001 0320 0001 3692 8949

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Laura R. Crouch  
 Manager - Air Programs  
 Tampa Electric Company  
 P. O. Box 111  
 Tampa, FL 33601-0111

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) **B. Rhind** B. Date of Delivery **8-20-02**

C. Signature: **x B. Rhind** ☒ Agent ☒ Addressee

D. Is delivery address different from item 1? ☐ Yes  
 If YES, enter delivery address below: ☐ No

3. Service Type  
☒ Certified Mail ☐ Express Mail  
☐ Registered ☐ Return Receipt for Merchandise  
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

<sup>2</sup> 7001 0320 0001 3692 8055

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-0952

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

**OFFICIAL USE**

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark  
Here

Sent To **Laura R. Crouch**  
 Street, Apt. No.,  
 or P.O. Box **111**  
 City, State, ZIP+4  
**Tampa, FL 33601-0111**

PS Form 3800, January 2001

See Reverse for Instructions

7001 0320 0001 3692 8055



**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Laura Crouch  
 Manager - Air Programs  
 Tampa Electric Company  
 P. O. Box 111  
 Tampa, FL 33601-0111

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) JO CHAVEZ B. Date of Delivery 10/10

C. Signature [Signature] ☐ Agent  
☒ Addressee

D. Is delivery address different from item 1? ☐ Yes  
 If YES, enter delivery address below: ☐ No

3. Service Type  
☒ Certified Mail ☐ Express Mail  
☐ Registered ☐ Return Receipt for Merchandise  
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

<sup>2</sup> 7001 0320 0001 3692 7898

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-0952

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

**OFFICIAL USE**

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark  
Here

Sent To Laura Crouch  
 Street, Apt. No.,  
 or P.O. Box 111  
 City, State, ZIP+4  
Tampa, FL 33601-0111

PS Form 3800, January 2001

See Reverse for Instructions

7001 0320 0001 3692 7898

**HOOKERS POINT STATION  
INTERNAL COMBUSTION ENGINES  
AIR CONSTRUCTION PERMIT APPLICATION**

**Prepared for:**



**TAMPA ELECTRIC  
Tampa, Florida**

**Prepared by:**



***Environmental Consulting & Technology, Inc.***  
3701 Northwest 98<sup>th</sup> Street  
Gainesville, Florida 32606

**ECT No. 001099-0100**

**June 2002**

## INTRODUCTION

Tampa Electric Company (TEC) operates six No. 6 oil-fired steam boilers (Units Nos. 1 through 6) at the Hookers Point Station located at 1700 Hemlock Street, Tampa, Hillsborough County, Florida. Operation of the existing steam boilers is currently authorized by Title V FINAL Permit No. 0570038-001-AV. FINAL Permit No. 0570038-001-AV was issued with an effective date of January 1, 1998, and expires on January 1, 2003.

To meet anticipated summer power demands, TEC recently installed 30 Caterpillar XQ2000 Power Modules at the Hookers Point Station. Each Power Module consists of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power output rating of 2,593 brake horsepower (bhp) at 100 percent load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100 percent load. The Caterpillar 3516B IC engines are fired exclusively with low sulfur (maximum of 0.05 weight percent sulfur) diesel fuel oil. Initial operation of the 30 IC engines was authorized by Department FINAL Permit No. 0570038-002-AC.

In correspondence to the Department dated April 1, 2002, TEC requested deletion of Department Air Permit No. 0570038-002-AC, Section III., Condition No. 15. This permit condition requires the 30 IC engines to cease operation in June 2003. In response, the Department requested submittal of a construction permit application—reference Department correspondence dated May 2, 2002.

TEC plans to permanently retire existing Hookers Point Station oil-fired Units 1 through 6 no later than January 1, 2003. The purpose of this construction permit application is to request deletion of Department Air Permit No. 0570038-002-AC, Section III., Condition No. 15 to allow for continued operation of the 30 IC engines following June 2003. In addition, actual engine fuel consumption has been found to be slightly higher than the original estimate; i.e., the maximum engine fuel consumption rate has been determined to be 128 gallons

per hour compared to the original estimate of 122.8 gallons per hour. Operation of the 30 Caterpillar XQ2000 Power Modules is presently limited to no more than 22,100 engine-hours during any consecutive 12-month period. Consistent with this operating hour constraint, TEC requests that the equivalent annual fuel oil consumption limit in Department Air Permit No. 0570038-002-AC, Section III., Condition No. 12 be changed to 2,828,800 gallons per year. No other revisions to Department Air Permit No. 0570038-002-AC are requested. Specifically, no changes to the IC engine NO<sub>x</sub> hourly (53 lb/hr/engine) and annual (582 tpy for all engines) emission rates listed in Department Air Permit No. 0570038-002-AC, Section III., Condition No. 7. are requested. IC engine stack testing conducted in July 2001 demonstrated that actual IC engine NO<sub>x</sub> emission rates are well below the permit limit of 53 lb/hr. Of the five IC engines tested in July 2001, the maximum test series average NO<sub>x</sub> emission rate was 39.2 lb/hr or only 74 percent of the 53 lb/hr permit limit.

As requested by the Department, Attachment A contains a completed FDEP Application for Air Permit—Title V Source; DEP Form 62-210.900(1). Attachment B provides IC engine emission rate calculations.

**ATTACHMENT A**

**APPLICATION FOR AIR PERMIT—  
TITLE V SOURCE**



# Department of Environmental Protection

**RECEIVED**

## Division of Air Resources Management

JUL 02 2002

### APPLICATION FOR AIR PERMIT - TITLE V SOURCE

BUREAU OF AIR REGULATION

See Instructions for Form No. 62-210.900(1)

#### I. APPLICATION INFORMATION

##### Identification of Facility

1. Facility Owner/Company Name: <b>Tampa Electric Company</b>	
2. Site Name: <b>Hookers Point Station</b>	
3. Facility Identification Number: <b>0570038</b> [ ] Unknown	
4. Facility Location: Street Address or Other Locator: <b>1700 Hemlock Street</b> City: <b>Tampa</b> County: <b>Hillsborough</b> Zip Code: <b>33605-6660</b>	
5. Relocatable Facility? [ ] Yes [ <input checked="" type="checkbox"/> ] No	6. Existing Permitted Facility? [ <input checked="" type="checkbox"/> ] Yes [ ] No

##### Application Contact

1. Name and Title of Application Contact: <b>Dru Latchman</b> <b>Associate Engineer – Air Programs, Environmental Planning</b>	
2. Application Contact Mailing Address: Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>6499 U.S. Highway 41 North</b> City: <b>Apollo Beach</b> State: <b>FL</b> Zip Code: <b>33572-9200</b>	
3. Application Contact Telephone Numbers: Telephone: <b>(813) 641 – 5034</b> Fax: <b>(813) 641-5081</b>	

##### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

## **Purpose of Application**

### **Air Operation Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

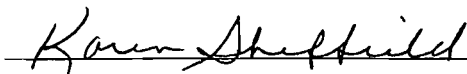
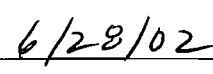
- ☐ Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- ☐ Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.
- Current construction permit number: \_\_\_\_\_
- ☐ Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.
- Current construction permit number: \_\_\_\_\_
- Operation permit number to be revised: \_\_\_\_\_
- ☐ Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)
- Operation permit number to be revised/corrected: \_\_\_\_\_
- ☐ Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.
- Operation permit number to be revised: \_\_\_\_\_
- Reason for revision: \_\_\_\_\_

### **Air Construction Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- ☒ Air construction permit to construct or modify one or more emissions units.
- ☐ Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- ☐ Air construction permit for one or more existing, but unpermitted, emissions units.

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Karen Sheffield, General Manager</b>
2. Application Contact Mailing Address: Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>1700 Hemlock Street</b> City: <b>Tampa</b> State: <b>FL</b> Zip Code: <b>33605-6660</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(813) 228-1111, Ext. 35300</b> Fax: <b>(813) 641-5418</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [ ✓ ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>   Signature   Date

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Thomas W. Davis</b> Registration Number: <b>36777</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Environmental Consulting &amp; Technology, Inc.</b> Street Address: <b>3701 Northwest 98<sup>th</sup> Street</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32606</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(352) 332-0444</b> Fax: <b>(352) 332-6722</b>



4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ ✓ ], if so), I further certify that the engineering features of each such emissions unit described in this application have been ~~designed or~~ examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature

Date

6/26/02

\* Attach any exception to certification statement.

**Scope of Application**

<b>Emissions Unit ID</b>	<b>Description of Emissions Unit</b>	<b>Permit Type</b>	<b>Processing Fee</b>
007 – 036	IC Engine/Generator Set Nos. 1 – 30	N/A	N/A

**Application Processing Fee**

Check one: ☐ Attached - Amount: \$ \_\_\_\_\_ ☒ Not Applicable

### Construction/Modification Information

1. Description of Proposed Project or Alterations:

Tampa Electric Company (TEC) has installed thirty (30) Caterpillar XQ2000 Power Modules at its existing Hookers Point Station. Each Power Module consists of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power output rating of 2,593 brake horsepower (bhp) at 100% load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100% load.

Condition No. 15 of Department Air Permit No. 0570038-002-AC requires the 30 IC engines to cease operation in June 2003. TEC plans to permanently retire existing Hookers Point Station oil-fired Units 1 through 6 no later than January 1, 2003. The purpose of this application is to request deletion of Condition No. 15 to allow for continued operation of the 30 IC engines following June 2003.

2. Projected or Actual Date of Commencement of Construction: N/A

3. Projected Date of Completion of Construction: N/A

### Application Comment



### Facility Regulatory Classifications

Check all that apply:

1. <input type="checkbox"/> Small Business Stationary Source?	<input type="checkbox"/> Unknown
2. <input checked="" type="checkbox"/> Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. <input type="checkbox"/> Synthetic Minor Source of Pollutants Other than HAPs?	
4. <input type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)?	
5. <input type="checkbox"/> Synthetic Minor Source of HAPs?	
6. <input type="checkbox"/> One or More Emissions Units Subject to NSPS?	
7. <input type="checkbox"/> One or More Emission Units Subject to NESHAP?	
8. <input type="checkbox"/> Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters):  <b>Facility classifications shown above apply after 1/1/03; i.e., following the permanent retirement of existing oil-fired Units 001 – 006.</b>	

### List of Applicable Regulations


## B. FACILITY POLLUTANTS

### **List of Pollutants Emitted**

[illegible]

**Note: Facility pollutants shown above apply after 1/1/03; i.e., following the permanent retirement of existing oil-fired Units 001 – 006.**

## C. FACILITY SUPPLEMENTAL INFORMATION

### Supplemental Requirements

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Facility Plot Plan: <input type="checkbox"/> Attached, Document ID: <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Process Flow Diagram(s): <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
6. Supplemental Information for Construction Permit Application: <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Not Applicable
7. Supplemental Requirements Comment:  <b>Items 1 and 2 previously submitted – see Hookers Point Station initial Title V permit application.</b>

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

8. List of Proposed Insignificant Activities: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
9. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input type="checkbox"/> Not Applicable
10. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
13. Risk Management Plan Verification: <input type="checkbox"/> Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: _____) or previously submitted to DEP (Date and DEP Office: _____) <input type="checkbox"/> Plan to be submitted to CEPPO (Date required: _____) <input type="checkbox"/> Not Applicable
14. Compliance Report and Plan: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
15. Compliance Certification (Hard-copy Required): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable



### III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

#### A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

##### Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
2. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Caterpillar XQ2000 Power Module comprised of one Caterpillar 3516B 16-cylinder, 4-stroke cycle diesel internal combustion (IC) engine and one Caterpillar SR4B generator. The Caterpillar 3516B IC engine has a power output rating of 2,593 brake horsepower (bhp) at 100% load. The Caterpillar SR4B generator has a power output rating of 1,825 kilowatts (kW) at 100% load. The IC engine will be fired exclusively with low sulfur diesel fuel oil.			
4. Emissions Unit Identification Number:		<input type="checkbox"/> No ID <input type="checkbox"/> ID Unknown	
ID: 007			
5. Emissions Unit Status Code: A	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			

## Emissions Unit Information Section 1 of 30

### Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

None

2. Control Device or Method Code(s): N/A

### Emissions Unit Details

1. Package Unit:	
Manufacturer: <b>Caterpillar</b>	Model Number: <b>XQ2000</b>
2. Generator Nameplate Rating: <b>1.825 MW</b>	
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	<b>17.5</b>	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:	hours/day	days/week
	weeks/year	<b>22,100 hours/year*</b>
6. Operating Capacity/Schedule Comment (limit to 200 characters):  <p><b>* Total fuel oil consumption limit of 2,828,800 gallons per year for all 30 engines combined is requested. This fuel oil consumption limit is equivalent to 22,100 engine-hours per year for all 30 engines at 100% load.</b></p>		

### C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

## List of Applicable Regulations

[illegible]

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>ENG 1</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>N/A</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>N/A</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>13.5 feet</b>	7. Exit Diameter: <b>6 ft x 8 ft</b>	
8. Exit Temperature: <b>856 °F</b>	9. Actual Volumetric Flow Rate: <b>14,251 acfm</b>	10. Water Vapor: <b>%</b>	
11. Maximum Dry Standard Flow Rate: <b>dscfm</b>		12. Nonstack Emission Point Height: <b>feet</b>	
13. Emission Point UTM Coordinates:  Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>Exit temperature (field No. 8) and actual flow rate (Field No. 9) are averages as measured during the July 2001 emissions testing.</b>			

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(All Emissions Units)**

**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>IC engine fired with diesel fuel oil.</b>		
3. Source Classification Code (SCC): <b>20100102</b>		3. SCC Units: <b>Thousand Gallons Burned</b>
4. Maximum Hourly Rate: <b>0.128</b>	5. Maximum Annual Rate: <b>1,121.28*</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>0.05</b>	8. Maximum % Ash: <b>0.01</b>	9. Million Btu per SCC Unit: <b>137</b>
10. Segment Comment (limit to 200 characters):  <b>* Total fuel oil consumption limit of 2,828,800 gallons per year for all 30 engines combined is requested.</b>		

**Segment Description and Rate:** Segment      of     

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):  		
2. Source Classification Code (SCC):		3. SCC Units:
3. Maximum Hourly Rate:	4. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
6. Maximum % Sulfur:	7. Maximum % Ash:	8. Million Btu per SCC Unit:
9. Segment Comment (limit to 200 characters):  		

**F. EMISSIONS UNIT POLLUTANTS**  
**(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>1 – NOX</b>			<b>EL</b>
<b>2 – SO2</b>			<b>WP</b>

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>NOX</b>	2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>53 lb/hour</b>	<b>582*</b> tons/year	4. Synthetically Limited? <input checked="" type="checkbox"/>
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year		
6. Emission Factor: <b>53 lb/hr</b> Reference: <b>Allowable emission rate</b>		7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>* Annual rate for all 30 engines.</b>		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):		

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>ESCPD</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>53 lb/hr</b>	4. Equivalent Allowable Emissions: <b>53 lb/hour</b> <b>582*</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>EPA Reference Method 7E</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>* Annual rate for all 30 engines.</b>	



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SO2</b>	2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>0.93 lb/hour</b> <b>10.3* tons/year</b>	4. Synthetically Limited? [ <input checked="" type="checkbox"/> ]	
5. Range of Estimated Fugitive Emissions: [    ] 1            [    ] 2            [    ] 3            _____ to _____ tons/year		
6. Emission Factor: <b>0.93 lb/hr</b> Reference: <b>Mass Balance</b>		7. Emissions Method Code: <b>2</b>
8. Calculation of Emissions (limit to 600 characters):  * Annual emission rate (all 30 engines) = (0.93 lb/hr) x (22,100 hr/yr) x (1 ton/2,000 lb)  Annual emission rate (all 30 engines) = 10.3 ton/yr  See Appendix B for emission rate calculations.		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):		

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.05 weight % S fuel oil</b>	4. Equivalent Allowable Emissions: <b>0.93 lb/hour            10.3 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual fuel analysis</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Annual allowable emission rate is the total for all 30 engines.</b>  <b>Rule 62-210.200, F.A.C. (PTE)</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: [ <input checked="" type="checkbox"/> ] Rule [ <input type="checkbox"/> ] Other
3. Requested Allowable Opacity: Normal Conditions: <b>20</b> %      Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
5. Method of Compliance: <b>EPA Reference Method 9</b>	
6. Visible Emissions Comment (limit to 200 characters):  <b>Rule 62-296.320(4)(b)1., F.A.C.</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 2

2. Visible Emissions Subtype: <b>VE27</b>	2. Basis for Allowable Opacity: [ <input type="checkbox"/> ] Rule [ <input checked="" type="checkbox"/> ] Other
3. Requested Allowable Opacity: Normal Conditions: %      Exceptional Conditions: <b>27</b> % Maximum Period of Excess Opacity Allowed: <b>60</b> min/hour	
7. Method of Compliance: <b>EPA Reference Method 9</b>	
8. Visible Emissions Comment (limit to 200 characters):  <b>Excess emissions resulting during startup and shutdown shall not exceed 27% opacity for up to 2 hours in any 24 hour period per Air Permit 0570038-002-AC, Section III, Condition No. 10.</b> <b>Rule 62-210.700(1), F.A.C.</b>	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number: <span style="float: right;">Serial Number:</span>	
5. Installation Date:	6. Performance Specification Test Date:
6. Continuous Monitor Comment (limit to 200 characters):	

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number: <span style="float: right;">Serial Number:</span>	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
**(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously submitted, Date: <u>August 21, 2001</u> <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <b>Attachment B – Emission Rate Calculations</b>
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:  <p><b>Item 2 previously submitted – reference January 2001 Air Construction Permit Application, Attachment B.</b></p>

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation [ ] Attached, Document ID: _____ [ ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ ] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ [ ] Not Applicable

NOTE:

EMISSION UNITS 007 THROUGH 036 ARE IDENTICAL UNITS.

SECTION III. EMISSIONS UNIT INFORMATION PROVIDED FOR EU 007 (IC ENGINE/GENERATOR NO. 1) IS ALSO APPLICABLE TO EU 008 (IC ENGINE/GENERATOR NO. 2) THROUGH EU 036 (IC ENGINE/GENERATOR NO. 30).

EMISSIONS UNIT INFORMATION SECTIONS 2 THROUGH 7 ARE IDENTICAL TO SECTION 1, WITH THE EXCEPTION OF IDENTIFICATION NUMBERS.

**ATTACHMENT B**

**EMISSION RATE CALCULATIONS**

# POTENTIAL EMISSION INVENTORY WORKSHEET

Tampa Electric Company, Hookers Point IC Engine Project

ENG  
007-036

## EMISSION SOURCE TYPE

HEAVY DUTY OIL-FIRED ENGINES - CRITERIA POLLUTANTS

## FACILITY AND SOURCE DESCRIPTION

Emission Source Description: 4-Cycle Rich Burn Engine  
Emission Control Method(s)/ID No.(s): None  
Emission Point Description: 1.825 MW Engine/Generator, Caterpillar Model XQ2000 Power Module

## EMISSION ESTIMATION EQUATIONS

Emission (lb/hr) = Engine Power Output (hp) x Pollutant Emission Factor (lb/hp-hr)  
Emission (ton/yr) = Engine Power Output (hp) x Pollutant Emission Factor (lb/hp-hr) x Operating Period (hrs/yr) x (1 ton/ 2,000 lb)

Source: ECT, 2002.

## INPUT DATA (PER ENGINE) AND EMISSIONS CALCULATIONS

Operating Hours: 24 Hrs/Day 7 Days/Wk  
Operating Hours: 737 Hrs/Yr (equivalent).  
Fuel Usage: 128.0 gal/hr 94,293 gal/yr (equivalent). Total fuel limited to 2,828,800 gal/yr.  
Engine Heat Input: 17.5 10<sup>6</sup> Btu/hr (LHV) Power Output: 1,825 kW  
Engine Power Output: 2,593 HP Fuel Oil Sulfur Content: 0.05 weight %  
Oil Heat Content: 137,000 Btu/gal (LHV) Heat Rate: 9,609 Btu/kW-hr  
Number of Engines: 30 Oil Consumed: 0.1280 10<sup>3</sup> gal/hr 94.29 10<sup>3</sup> gal/yr

Criteria Pollutant	Pollutant Emission Factors		Potential Emission Rates (Per Engine)		Potential Emission Rates (All Engines)	
	(g/hp-hr)	(lb/hp-hr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
NO <sub>x</sub>	9.22	0.02032	52.7	19.41	1,580.7	582.2
CO	0.17	0.00037	0.97	0.36	29.1	10.7
THC	0.17	0.00037	0.97	0.36	29.1	10.7
SO <sub>2</sub>	0.16	0.00036	0.93	0.34	28.0	10.3
PM/PM <sub>10</sub>	0.08	0.00019	0.48	0.18	14.4	5.3
H <sub>2</sub> SO <sub>4</sub> <sup>1</sup>	0.0023	0.000051	0.013	0.005	0.39	0.15

## SOURCES OF INPUT DATA

Parameter	Data Source
Operating Hours	ECT, 2002. Total fuel consumption for all 30 engines limited to avoid PSD review.
Fuel Usage Data	Caterpillar, 2000.
Engine Power Output	Caterpillar, 2000.
Fuel Oil Sulfur Content	TEC, 2002.
Emission Factors (except SO <sub>2</sub> and H <sub>2</sub> SO <sub>4</sub> )	Caterpillar (100% load), 2000.
Emission Factor, SO <sub>2</sub>	Mass balance, ECT, 2002.
Emission Factor, H <sub>2</sub> SO <sub>4</sub>	Table 1.3-1, AP-42, EPA, September 1998.

## NOTES AND OBSERVATIONS

<sup>1</sup> H<sub>2</sub>SO<sub>4</sub> emissions assumes 100% conversion of SO<sub>3</sub> to H<sub>2</sub>SO<sub>4</sub>.

## DATA CONTROL

Data Collected by: T.Davis Date: Jun-02  
Data Entered by: T.Davis Date: Jun-02  
Reviewed by: D. Latchman Date: Jun-02



**Tampa Electric Company, Hookers Point IC Engine Project**  
**Hazardous Air Pollutant (HAP) Potential Emission Estimates**  
**IC Engines - Diesel**

Emission Unit ID No.	Engine Model	No. of Engines	Engine Data ( Per Engine)			
			Operating Hours (hr/yr)	Engine Rating (hp)	Heat Input (10 <sup>6</sup> Btu/hr)	Heat Input (10 <sup>6</sup> Btu/yr)
007-036	Caterpillar 3516B	30	737	2,593	17.54	12,918.2
		CAS	Uncontrolled Emission Factor (lb/10 <sup>6</sup> Btu)	Each Engine Potential Emissions (tpy)	30 Engines Potential Emissions (tpy)	
	1,3-Butadiene	106-99-0	1.56E-03	1.01E-02	3.02E-01	
	Acetaldehyde	75-07-0	1.91E-03	1.23E-02	3.70E-01	
	Acrolein	107-02-8	1.51E-04	9.75E-04	2.93E-02	
	Benzene	7-14-32	1.16E-03	7.49E-03	2.25E-01	
	Beryllium	N/A	4.67E-07	3.02E-06	9.05E-05	
	Cadmium	N/A	2.24E-05	1.45E-04	4.34E-03	
	Chromium	N/A	3.71E-06	2.40E-05	7.19E-04	
	Ethylbenzene	100-41-4	5.73E-05	3.70E-04	1.11E-02	
	Formaldehyde	50-00-0	2.08E-03	1.34E-02	4.03E-01	
	Hexane	110-54-3	9.76E-05	6.30E-04	1.89E-02	
	Lead	N/A	6.92E-06	4.47E-05	1.34E-03	
	Manganese	N/A	2.15E-05	1.39E-04	4.17E-03	
	Mercury	N/A	1.44E-06	9.30E-06	2.79E-04	
	Naphthalene	91-20-3	1.20E-03	7.75E-03	2.33E-01	
	Nickel	N/A	3.84E-06	2.48E-05	7.44E-04	
	PAH	N/A	2.73E-03	1.76E-02	5.29E-01	
	Selenium	N/A	1.84E-06	1.19E-05	3.57E-04	
	Toluene	108-88-3	6.46E-04	4.17E-03	1.25E-01	
	Xylene	1330-20-7	3.99E-04	2.58E-03	7.73E-02	
<b>Maximum Individual HAP</b>				<b>0.018</b>	<b>0.53</b>	
<b>Total HAPs</b>				<b>0.078</b>	<b>2.34</b>	

Source: ECT, 2002.

# Ringhaver



Ringhaver Equipment Co.

June 28, 2002

Ms. Drupatie Latchman  
Tampa Electric Company  
PO Box 111  
Tampa, FL 33601

Subject: Fuel Rate For Caterpillar Model 3516B Diesel Generator Set

Dear Ms. Latchman:

The fuel rate for the above generator set is approximately 123.1 gph while operating at 1825 KW. Due to a tolerance of +/- 5%, the fuel rate may vary from approximately 116.9 gph to approximately 129.3 gph. The fuel rate and tolerances are based on the conditions listed on the following page.

Please do not hesitate to call if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Obal".

Alan Obal  
Power Systems Division

-GKPN02- TMI - ENGINE AND COMP PERF

DATE: 12/07/00

09 - PACKAGE SET PERFORMANCE

TIME: 08:41:08

3516B DI TA SC DRY MANF TURBO QTY 4 PARALLEL ADEM GOV

DM4501-02

INFO CODE 08 - PERFORMANCE PARAMETERS REFERENCE \* \* \* \* \*

TM5739 - 04 GEN SET - PACKAGED - DIESEL

29 DEG C (84.2 DEG F) WHERE THE DENSITY IS 838.9 G/L (7.002 LB/GAL).

THE CORRECTED PERFORMANCE VALUES SHOWN FOR CATERPILLAR ENGINES WILL APPROXIMATE THE VALUES OBTAINED WHEN THE OBSERVED PERFORMANCE DATA IS CORRECTED TO SAE J1995, ISO 3046-2 & 8665 & 2288 & 9249 & 1585, EEC 80/1269 AND DIN70020 STANDARD REFERENCE CONDITIONS.

ENGINES ARE EQUIPPED WITH STANDARD ACCESSORIES; LUBE OIL, FUEL PUMP AND JACKET WATER PUMP. THE POWER REQUIRED TO DRIVE AUXILIARIES MUST BE DEDUCTED FROM THE GROSS OUTPUT TO ARRIVE AT THE NET POWER AVAILABLE FOR THE EXTERNAL (FLYWHEEL) LOAD. TYPICAL

PRESS <ENTER> FOR ADDITIONAL NOTES

NEXT TRAN: INFO CODE ( 08 ) UNIT TYPE ( E )

HLP-F1 ACF-F3 PGM-F4 INQ-F5

IDX-F9

-GKPN02- TMI - ENGINE AND COMP PERF DATE: 12/07/00  
09 - PACKAGE SET PERFORMANCE TIME: 08:40:58  
3516B DI TA SC DRY MANF TURBO QTY 4 PARALLEL ADEM GOV  
DM4501-02  
INFO CODE 08 - PERFORMANCE PARAMETERS REFERENCE \* \* \* \* \*  
TM5739 - 04 GEN SET - PACKAGED - DIESEL  
FUEL RATE +/- 5%  
HEAT REJECTION +/- 5%  
HEAT REJECTION EXHAUST ONLY +/- 10%

CONDITIONS:  
ENGINE PERFORMANCE IS CORRECTED TO INLET AIR STANDARD CONDITIONS  
OF 99 KPA (29.31 IN HG) AND 25 DEG C (77 DEG F).

THESE VALUES CORRESPOND TO THE STANDARD ATMOSPHERIC PRESSURE AND  
TEMPERATURE IN ACCORDANCE WITH SAE J1995. ALSO INCLUDED IS A  
CORRECTION TO STANDARD FUEL GRAVITY OF 35 DEGREES API HAVING A  
LOWER HEATING VALUE OF 42,780 KJ/KG (18,390 BTU/LB) WHEN USED AT

PRESS <ENTER> FOR ADDITIONAL NOTES

NEXT TRAN: INFO CODE ( 08 ) UNIT TYPE ( E )  
HLP-F1 ACF-F3 PGM-F4 INQ-F5 IDX-F9