



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

October 31, 1997

Mr. Harvey F. Wildschuetz
Utilities Director
Lake Worth Utilities
1900 2nd Avenue North
Lake Worth, FL 33461

Re: Proposed Title V Permit No.: 0990045-002-AV
Tom G. Smith Power Plant and Lake Worth Water Treatment Plant

Dear Mr. Wildschuetz:

One copy of the "PROPOSED PERMIT DETERMINATION" for the Tom G. Smith Power Plant and Lake Worth Water Treatment Plant located at 117 South College Street, Lake Worth, Palm Beach County, is enclosed. This letter is a courtesy to inform you that the DRAFT permit has become a PROPOSED permit. Because of the number of changes to the DRAFT, a copy of the PROPOSED permit has been printed for the applicant.

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

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permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

If you should have any questions, please contact Joseph Kahn, P.E., at 850/488-1344.

Sincerely,

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

CHF/jk

Enclosures

copy furnished to:

Mr. Albert D. Magley, Jr., P.E., Raytheon

Ms. Margaret Johnstone, LWU

Mr. James Stormer, PBCHD

Ms. Carla E. Pierce and Ms. Yolanda Adams, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

Mr. William C. Michael, LWU

Mr. Isidore Goldman, P.E., DEP SED

10/31/97 cc - Joe Kahn

Reading Dale
"Protect, Conserve and Manage Florida's Environment and Natural Resources"
Printed on recycled paper.

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page 1 of 11

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" to the City of Lake Worth for the Tom G. Smith Power Plant and Lake Worth Water Treatment Plant located at 117 South College Street, Lake Worth, Palm Beach County was clerked on August 18, 1997. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was published in the Palm Beach Post on August 25, 1997. The DRAFT Title V Air Operation Permit was available for public inspection at the Palm Beach County Health Department and the Department's Southeast District Office, both in West Palm Beach, and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was received on August 29, 1997.

II. Public Comment(s).

Comments were received from the applicant and the local program and the DRAFT Title V Operation Permit was changed. The comments were not considered significant enough to reissue the DRAFT Title V Permit and require another Public Notice. The changes made by the Department in response to comments are attached.

The enclosed PROPOSED Title V Air Operation Permit includes the aforementioned changes to the DRAFT Title V Air Operation Permit.

Document(s) on file with the permitting authority:

- Letter received August 29, 1997 from Jeff Koerner of the Palm Beach County Health Department
- Letter received September 11, 1997 (by fax) from Margaret Johnstone of LWU.
- Memo received October 8, 1997 from Margaret Johnstone of LWU.
- Letter received October 14, 1997 (by fax) from Margaret Johnstone of LWU.
- Letter received October 30, 1997 (by fax) from Angela Morrison of HGSS.

III. Conclusion.

The permitting authority will issue the PROPOSED Permit No.: 0990045-002-AV, with any changes noted above. Because of the number of changes to the DRAFT, a copy of the PROPOSED permit has been printed for the applicant.

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page 2 of 11

Changes to DRAFT Permit

Address

The facility address was corrected to 117 College Street.

This permit is for the operation of the Tom G. Smith Power Plant and Lake Worth Water Treatment Plant. This facility is located at 117 College Street, Lake Worth, FL 33461; UTM Coordinates: Zone 17, 592.8 km East and 2943.7 km North; Latitude: 26° 36' 45" North and Longitude: 80° 04' 04" West.

Alternate Sampling Procedure

The Scrivener's Order dated July 9, 1997 correcting ASP 97-B-01 was listed on the placard page.

Facility Description

The facility description was revised as follows.

Subsection A. Facility Description.

This facility is an electric power generating plant and an adjacent potable water treatment facility and consists of:

Five 2000 kW diesel engine generators; Fossil Fuel Steam Generating Units 1 (S-1), 3 (S-3) and 4 (S-4); Gas Turbine # 1, (GT-1); and a Combined Cycle Unit, (GT-2/S-5).

Heat Input Rates/Limits

A method for determining heat input rates during testing has been added to specific condition E.5. See **Common Conditions** below.

To clarify that the heat input limitation is not intended to limit the current electric power production capacity of the City, we have changed the description of each unit to identify it is "nominally rated" at its MW rating. An example is:

Fossil Fuel Steam Generating Unit 1 (S-1), nominally rated at 7.5 MW, 111 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil, with emissions exhausted through a 60 ft. stack

Diesel Engine Generators

The description has been changed throughout the permit to diesel engine generators.

MW Rating of Combined Cycle Unit

The revised description is as follows through the permit:

Combined Cycle Unit, (GT-2/S-5), nominally rated at 29.5 MW, consists of a gas turbine (GT-2) nominally rated at 20 MW and a heat recovery steam generator (S5) nominally rated at 10 MW. GT-2 has a maximum heat input of 317.6 mmBtu/hr, capable of burning any combination of natural gas and number 2 fuel oil, with emissions exhausted through a 75 ft. stack

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page 3 of 11

General VOC Standards

Facility-wide condition 6 was changed to:

6. Not Federally Enforceable. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. The owner or operator shall:

- a. Tightly cover or close all VOC or OS containers when they are not in use.
- b. Immediately clean up VOC or OS spills and make sure wastes are placed in closed containers for reuse, recycling or proper disposal.

[Rule 62-296.320(1)(a), F.A.C.]

Unconfined Particulate Matter

Facility-wide condition 7 was changed to:

7. Not Federally Enforceable. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. When performing sandblasting on fixed plant equipment, the facility shall construct temporary enclosures when practical and necessary, in order to prevent unconfined particulate emissions.
- b. Maintenance of paved areas as needed.
- c. Regular care of vegetation.
- d. Limiting access to plant property by unnecessary vehicles.
- e. Bagged chemical products shall be stored in buildings until they are used.
- f. Spills of powdered chemical products are cleaned up as soon as practicable.
- g. Sweeping paved roads with a wet vacuum truck.
- h. Watering, if necessary, the lime backwash residue holding area.

[Rule 62-296.320(4)(c)2., F.A.C.; Items 7.g. & h. proposed by applicant in the Additional Information Response received July 31, 1997]

{Note: This condition implements the requirements of Rules 62-296.320(4)(c)1., 3., & 4. F.A.C. (condition 57 of Appendix TV-1, dated 8/11/97).}

EPA Address

An address was added to Facility-wide condition 9 for Acid Rain submittals.

For Acid Rain submittals, submittals should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Acid Rain Section
61 Forsyth Street
Atlanta, GA 30303

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page 4 of 11

Annual Testing

The annual testing conditions A.4, B.12, C.15 and D.9 have been changed to allow until the end of the federal fiscal year to conduct emissions testing. Conditions A.4, B.12, C.15 and D.9 were also revised to include, "Annual compliance testing while firing oil is not required for units that operated on oil for less than 400 hours in the previous federal fiscal year (ending September 30th)." An example is condition A.4:

A.4. Annual Tests Required - NO_x and VE. Except as provided in specific conditions E.6 through E.8 of this permit, emission testing for nitrogen oxide emissions and visible emissions shall be performed annually, no later than the end of each federal fiscal year (September 30), except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service. Annual compliance testing while firing oil is not required for units that operated on oil for less than 400 hours in the previous federal fiscal year (ending September 30th). [Rules 62-4.070(3) and 62-213.440, F.A.C.]

Since the City has agreed to make an effort to continue to test near the current test date, the frequency base date in the tables of Table 2-1 has not been changed, and continues to show a base date of February 28th for testing.

Fuel Consumption Records

Condition A.5.b. was changed to read:

- b. The total fuel consumption of all five units combined each calendar month.

Common Conditions

Specific conditions E.2, E.3, E.5, E.9, E.10, E.11, and E.18 have been changed.

E.2. (This condition is applicable only to emissions units 001 - 005, 006 and 011.) Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided (1) that best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

E.3. (This condition is applicable only to emissions units 007, 009 and 010.) Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.

Excess emissions resulting from malfunction shall be permitted provided (1) that best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1) & (2), F.A.C.]

E.5. 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.

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page 5 of 11

(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.

(c) Heat input rate shall be determined by average fuel use during testing (to be determined by fuel flow meters or fuel tank measurements) and the latest fuel analysis available from the vendor or operator (for Btu content of the fuel used).

{Permitting Note: The permittee and the Department agree that the CEMS used for the federal Acid Rain Program conservatively overestimates the heat input rate for Unit S-3 (emissions unit 009). The monitoring data for heat input is therefore not appropriate for purposes of compliance, including annual compliance certifications.}

[Rules 62-297.310(5) and 62-213.440, F.A.C., and request of applicant]

E.9. (This condition is applicable only to emissions units 001 - 005, 006 and 011.) Visible Emissions - Turbines, Diesel Engine Generators. The test method for visible emissions for emissions units 006 (GT-1), 011 (GT-2/S-5), and 001 through 005 (diesel engine generators) shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. [Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C., and modified conditions of PA 74-05 ordered September 28, 1987]

E.10. (This condition is applicable only to emissions units 007, 009 and 010.) Visible Emissions - Boilers. The test method for visible emissions for emissions units 007 (S-1), 009 (S-3) and 010 (S-4) shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C. See specific condition E.11. [Rule 62-296.405(1)(e)1., F.A.C.]

E.11. (This condition is applicable only to emissions units 007, 009 and 010.) DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:
 - a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
 - b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

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

[Rule 62-297.401, F.A.C.]

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page 6 of 11

E.18. (This condition is applicable only to emissions units 009 and 010.) Excess Emissions - Report. Submit to the Palm Beach County Health Department's Air Section a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years.

[Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

To properly exclude inapplicable common conditions, specific conditions A.6 and D.10 were changed to the following:

A.6. This emissions unit is also subject to conditions E.1 through E.19, except for E.3, E.10, E.11 and E.18, contained in **Subsection E. Common Conditions.**

D.10. This emissions unit is also subject to conditions E.1 through E.19, except for E.3, E.10, E.11 and E.18, contained in **Subsection E. Common Conditions.**

Similarly, conditions B.13 and C.17 were changed to the following:

B.13. This emissions unit is also subject to conditions E.1 through E.19, except for E.2, E.9 and E.18, contained in **Subsection E. Common Conditions.**

C.17. This emissions unit is also subject to conditions E.1 through E.19, except for E.2 and E.9, contained in **Subsection E. Common Conditions.**

Fuels

Conditions B.3, C.3 and D.3 were changed:

B.3. Methods of Operation. Fuels.

- a. Startup: The only fuel(s) allowed to be burned are any combination of natural gas and/or number 6 fuel oil.
- b. Normal: The only fuel(s) allowed to be burned are any combination of natural gas and/or number 6 fuel oil.

[Rule 62-213.410, F.A.C.]

C.3. Methods of Operation. Fuels.

- a. Startup: The only fuel(s) allowed to be burned are any combination of natural gas and/or number 6 fuel oil.
- b. Normal: The only fuel(s) allowed to be burned are any combination of natural gas and/or number 6 fuel oil.

[Rule 62-213.410, F.A.C.]

D.3. Methods of Operation - Fuels.

- a. Emissions unit 006: Only number 2 fuel oil shall be fired in the combustion turbine.
- b. Emissions unit 011: Only any combination of natural gas and/or number 2 fuel oil shall be fired in the combustion turbine.

[Rule 62-213.410, F.A.C.]

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page 7 of 11

Fuel Sampling and Analysis

Condition B.10 was revised:

B.10. Fuel Sampling & Analysis - Sulfur. For this emissions unit, the following fuel sampling and analysis protocol shall be used to demonstrate compliance with the fuel sulfur limitation of specific condition B.7 of this permit:

- a. Sample the as-fired fuel oil each day fuel oil is fired.
- b. Composite the daily samples and each month determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, or both ASTM D4057-88 and ASTM D129-95 (or latest editions) to analyze a representative sample of the composited as-fired fuel oil.

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

Conditions C.12 and D.7 were revised as follows:

C.12. Fuel Sampling & Analysis - Sulfur. For each emissions unit, the following fuel sampling and analysis protocol shall be used to demonstrate compliance with the fuel sulfur limitation of specific condition C.8 of this permit:

- a. Sample the as-fired fuel oil each day fuel oil is fired.
- b. Composite the daily samples and each month determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, or both ASTM D4057-88 and ASTM D129-95 (or latest editions) to analyze a representative sample of the composited as-fired fuel oil. Each composite sample shall also be analyzed for heating value.
- c. Record monthly the amount of each fuel fired, and maintain records of the monthly analyses of the heating value of each fuel, and the percent sulfur content by weight of each fuel, to enable calculations of sulfur dioxide emissions.

[Rules 62-4.070(3) and 62-213.440, F.A.C., and PPSC PA 74-05]

D.7. Fuel Sampling & Analysis - Sulfur. For each emissions unit, the following fuel sampling and analysis protocol shall be used to demonstrate compliance with the fuel sulfur limitation of specific condition D.4 of this permit:

- a. Sample the as-fired fuel oil each day fuel oil is fired.
- b. Composite the daily samples and each month determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, or both ASTM D4057-88 and ASTM D129-95 (or latest editions) to analyze a representative sample of the composited as-fired fuel oil. Each composite sample shall also be analyzed for heating value.
- c. Record monthly the amount of each fuel fired, and maintain records of the monthly analyses of the heating value of each fuel, and the percent sulfur content by weight of each fuel, to enable calculations of sulfur dioxide emissions.

[Rules 62-4.070(3) and 62-213.440, F.A.C., and PPSC PA 74-05]

Sootblowing/Load Change

Condition C.5 was changed as follows:

C.5. Visible Emissions - Soot Blowing and Load Change. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page 8 of 11

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

(The following paragraph is applicable to emissions unit 009 (Unit S-3) and will become applicable to emissions unit 010 (Unit S-4) only upon installation of an operational continuous opacity monitor at Unit S-4.) Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this condition. [Rule 62-210.700(3), F.A.C., Note: Unit S-3 has an operational continuous opacity monitor. Unit S-4 may install an operational continuous opacity monitor in the future, and at that time be allowed visible emissions greater than 60% opacity pursuant to Rule 62-210.700(3), F.A.C., and specific condition C.5 of this permit.]

NO_x CEMS

The requested changes to specific condition C.16 to match the rule requirements and clarify that CEMS data need not be regularly submitted to the Department was made.

C.16. NO_x CEMS Required - Unit 3 (S-3, Emissions Unit 009). For emissions unit 009, compliance with the NO_x limitation shall be demonstrated with a continuous emission monitoring system (CEMS). Compliance shall be based on a 30-day rolling average, excluding periods of startup, shutdown or malfunction as provided by Rule 62-210.700, F.A.C. The CEMS shall be properly maintained and operated and shall meet the performance specifications of 40 CFR 60, Appendix B, or 40 CFR 75. The CEMS data shall be maintained on-site for inspection by the Department and need not be submitted to the Department unless specifically requested.
[Rules 62-4.070(3), 62-213.440, F.A.C. and 62-296.570(4)(a)4., and request of applicant]

Stack Sampling Facilities

The requested change to specific condition E.16 was made.

E.16. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. Temporary stack sampling facilities under Rule 62-297.310(6)(b), F.A.C. may be used in lieu of permanent facilities.
[Rule 62-297.310(6), F.A.C.]

Annual Statement of Compliance

To clarify that condition A.4 in the Acid Rain subpart is generally applicable, it was moved to Section II, Facility-wide Conditions, and numbered condition 10:

10. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year.
{See condition No. 51., Appendix TV-1, Title V Conditions}
[Rule 62-214.420(11), F.A.C.]

Fast-Track Revisions of Acid Rain Parts

We agree that this rule is applicable regardless of its inclusion into the permit. However, we will include the following condition in the Acid Rain Section IV, which will replace the existing condition A.4 which is being moved as described above:

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page 9 of 11

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

Permit History

The permit history table has been revised to reflect the NOx RACT operation permit and the related PPSC revisions.

009	Fossil Fuel Steam Generator Unit #3 (S-3)	AO 50-169444 PA - 74-05	01/31/96 05/18/76	09/15/96		09/28/87 03/27/96
010	Fossil Fuel Steam Generator Unit #4 (S-4)	AO 50-169444 PA - 74-05	01/31/96 05/18/76	09/15/96		09/28/87 03/27/96
011	Combined Cycle Gas Turbine (GT-2/S-5)	PA - 74-05	05/18/76			09/28/87 03/27/96
001 - 005, 006, 007, 009, 010	Diesel engine generators #1 - 5 GT-1 S-1 S-3 S-4	0990045-001-AO (amendment of AO 50-169444, AO 50-172357, AO 50-219177, for NOx RACT)	01/31/96			

Summary Tables

Table 2-1 for emissions units 009 and 010 for sulfur dioxide CMS was changed to "No^a" with the following footnote:

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
SO ₂	Oil, Natural Gas	Fuel sampling & analysis	Sampling daily, analysis of monthly composite			No ^a	C.8, C.11 & C.12

Note for EU 009 & 010:

a A continuous monitor for SO2 is operated by the City for emissions unit 009. Compliance with the fuel sulfur limitation is not via the continuous monitor.

The pollutant column for Table 2-1 for emissions units 006 and 011 was changed to note that the sulfur dioxide information is for emissions unit 011 only:

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page 10 of 11

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
SO ₂ (Emissions Unit 011 only)	Oil, Natural Gas	Fuel sampling & analysis	Sampling daily, analysis of monthly composite			No	D.4, D.6 & D.7

Palm Beach County Comments

The Health Department commented that the listing of emissions units in Subsections A and B is redundant. We have revised the description of the facility as described above.

We have revised the Health Department's ZIP code to 33402-0029 in specific condition 9 of Section II.

The Health Department wanted a reference to the general VE standard for each regulated emissions unit that does not have a specific VE limit. We have added a note in Subsections A and D, respectively, under **Emission Limitations and Standards** as follows:

Emission Limitations and Standards

{Note: Emissions units 001 through 005 are also subject to the visible emissions standard of specific condition 3 of this permit.}

Emission Limitations and Standards

{Note: Emissions unit 006 is also subject to the visible emissions standard of specific condition 3 of this permit.}

The Health Department requested the reference to the operating rate limitation after testing be made more clear. After discussing this request with the City, the Department elected to make no changes to specific conditions B.2, C.2 and D.2.

Clarifications were made in Subsection C regarding the CEMS operated for Unit S-3 and the NOx monitoring requirement for Unit S-4:

Subsection C. This section addresses the following emissions units.

009	Fossil Fuel Steam Generating Unit 3 (S-3), nominally rated at 26.5 MW, 325.1 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil, with emissions exhausted through a 113 ft. stack
010	Fossil Fuel Steam Generating Unit 4, (S-4), nominally rated at 33 MW, 419.1 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil, with emissions exhausted through a 115 ft. stack

{Permitting note(s): The emissions units are regulated under Acid Rain, Phase II, Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input, and Rule 62-296.570, F.A.C., NOx RACT, Power Plant Siting Certification No. PA 74-05, and the modified conditions of PA 74-05 ordered September 28, 1987. Fossil fuel fired steam generator Unit 3 (S-3) began commercial operation in 1966; and, fossil fuel fired steam generator Unit 4 (S-4) began commercial operation in 1970. The

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page 11 of 11

permittee reported it operates the following continuous monitors for Unit S-3: SO₂, NO_x, CO₂, flow, visible emissions, and temperature.}

C.13. NO_x Testing. Compliance with the NO_x emission limitation shall be demonstrated by annual emission testing in accordance with EPA Test Method 7E, for emissions unit 010. If a continuous emission monitoring system (CEMS) for NO_x is installed at emissions unit 010, compliance shall then be demonstrated by the CEMS. Compliance with the NO_x emission limitation shall be demonstrated by a CEMS for emissions unit 009. See specific conditions **C.15** and **C.16**.
[Rule 62-296.570, F.A.C.]

C.15. Annual NO_x Tests Required - Unit 4 (S-4, Emissions Unit 010). For emissions unit 010, emission testing for NO_x shall be performed annually, no later than the end of each federal fiscal year (September 30), except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service. Annual compliance testing while firing oil is not required for units that operated on oil for less than 400 hours in the previous federal fiscal year (ending September 30th).

Should the owner or operator install a continuous emission monitoring system (CEMS) for NO_x emissions at emission unit 010, compliance with the NO_x limitation shall be demonstrated with the CEMS. Compliance shall be based on a 30-day rolling average. The CEMS shall be properly maintained and operated and shall meet the performance specifications of 40 CFR 60, Appendix B, or 40 CFR 75. The CEMS data shall be maintained on site for inspection by the Department.
[Rules 62-4.070(3), 62-213.410, F.A.C. and 62-296.570(4)(a)3. & 4.]

In Table 1-1 for emissions units 006 and 011, under the Standard(s) column, the order of NO_x standards for oil and gas was reversed to maintain consistency with the Fuel(s) column:

NO_x (EU 006)	Oil ^a , Natural Gas ^b	8760	0.90 lb/mmBtu (fuel oil) 0.50 lb/mmBtu (natural gas)			392 218	1715 953	Rules 62-570, F.A.C.	D.5
NO_x (EU 011)	Oil ^a , Natural Gas ^b	8760	0.90 lb/mmBtu (fuel oil) 0.50 lb/mmBtu (natural gas)			286 159	1252 696	Rules 62-570, F.A.C.	D.5

In Table 2-1 for emissions units 007, 009 and 010, and 006 and 011, the "Frequency" for units subject to sampling and analyzing for fuel sulfur will read, "Sampling daily, analysis of monthly composite". For example:

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
SO ₂	Oil, Natural Gas	Fuel sampling & analysis	Sampling daily, analysis of monthly composite			No	B.7, B9 & B.10

Department Changes

The citation for specific condition C.16 was amended to add the NO_x RACT rule, Rule 62-296.570(4)(a)4, F.A.C. See NO_x CEMS above.

City of Lake Worth Utilities
Tom G. Smith Power Plant and Lake Worth Water Treatment Plant
Facility ID No.: 0990045
Palm Beach County

Initial Title V Air Operation Permit
PROPOSED Permit No.: 0990045-002-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section

Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-1344
Fax: 850/922-6979

Initial Title V Air Operation Permit
PROPOSED Permit No.: 0990045-002-AV

Table of Contents

Section	Page Number
Placard Page	1
I. Facility Information	2 - 3
A. Facility Description.	
B. Summary of Emissions Unit ID No(s). and Brief Description(s).	
C. Relevant Documents.	
II. Facility-wide Conditions	4 - 6
III. Emissions Unit(s) and Conditions	
A. Emissions Units 001 through 005, Diesel Engine Generators 1 - 5.....	7 - 8
B. Emissions Unit 007, Fossil Fuel Steam Generating Unit 1, S-1	9 - 10
C. Emissions Unit 009, Fossil Fuel Steam Generating Unit 3, S-3 Emissions Unit 010, Fossil Fuel Steam Generating Unit 4, S-4	11 - 14
D. Emissions Unit 006, Gas Turbine # 1, GT-1 Emissions Unit 011, Combined Cycle Unit, GT-2/S-5	15 - 16
E. Common Conditions, Emissions Units 001 through 011	17 - 23
IV. Acid Rain Part	
A. Acid Rain, Phase II	24
Attachments	end



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

Permittee:

City of Lake Worth Utilities

PROPOSED Permit No.: 0990045-002-AV

Facility ID No.: 0990045

SIC Nos.: 49, 4931

Project: Initial Title V Air Operation Permit

This permit is for the operation of the Tom G. Smith Power Plant and Lake Worth Water Treatment Plant. This facility is located at 117 College Street, Lake Worth, FL 33461; UTM Coordinates: Zone 17, 592.8 km East and 2943.7 km North; Latitude: 26° 36' 45" North and Longitude: 80° 04' 04" West.

STATEMENT OF BASIS: This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix U-1, List of Unregulated Emissions Units and/or Activities

Appendix E-1, List of Exempt Emissions Units and/or Activities

Appendix TV-1, Title V Conditions (version dated 8/11/97)

Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96)

Table 297.310-1, Calibration Schedule (version dated 10/07/96)

Phase II Acid Rain Application/Compliance Plan received 07/01/95

Alternate Sampling Procedure: ASP Number 97-B-01

Scrivener's Order dated July 9, 1997 correcting ASP 97-B-01

Effective Date: January 1, 1998

Renewal Application Due Date: July 5, 2002

Expiration Date: December 31, 2002

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/sms/jk

Section I. Facility Information.

Subsection A. Facility Description.

This facility is an electric power generating plant and an adjacent potable water treatment facility and consists of:

Five 2000 kW diesel engine generators; Fossil Fuel Steam Generating Units 1 (S-1), 3 (S-3) and 4 (S-4); Gas Turbine # 1, (GT-1); and a Combined Cycle Unit, (GT-2/S-5).

Also included in this permit are miscellaneous unregulated/exempt emissions units and/or activities.

No activities at the water treatment plant were required to be included in this permit as emissions units.

Based on the initial Title V permit application received June 13, 1996, this facility is not a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
001 - 005	Five 2000 kW diesel engine generators, an MP 36 Power Pack; each diesel generator is a model 567D4 manufactured by GM Electro Motive Division.
007	Fossil Fuel Steam Generating Unit 1 (S-1), nominally rated at 7.5 MW, 111 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil, with emissions exhausted through a 60 ft. stack
009	Fossil Fuel Steam Generating Unit 3 (S-3), nominally rated at 26.5 MW, 325.1 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil, with emissions exhausted through a 113 ft. stack
010	Fossil Fuel Steam Generating Unit 4, (S-4), nominally rated at 33 MW, 419.1 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil, with emissions exhausted through a 115 ft. stack
006	Gas Turbine # 1, (GT-1), nominally rated at 30 MW, 435 mmBtu/hr, capable of burning number 2 fuel oil, with emissions exhausted through a 46 ft. stack
011	Combined Cycle Unit, (GT-2/S-5), nominally rated at 29.5 MW, consists of a gas turbine (GT-2) nominally rated at 20 MW and a heat recovery steam generator (SS) nominally rated at 10 MW. GT-2 has a maximum heat input of 317.6 mmBtu/hr, capable of burning any combination of natural gas and number 2 fuel oil, with emissions exhausted through a 75 ft. stack

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1, Permit History/ID Number Changes

Table 1-1, Summary of Air Pollutant Standards and Terms

Table 2-1, Summary of Compliance Requirements

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 13, 1996

Additional Information Request dated May 5, 1997

Additional Information Response received July 31, 1997

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-1, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
2. **Not Federally Enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rule 62-296.320(4)(b)1. & 4, F.A.C.]
4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
 - a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and
 - b. certification forms and/or RMPs according to the promulgated rule schedule.[40 CFR 68]
5. Exempt Emissions Units and/or Activities. Appendix E-1, List of Exempt Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]
6. **Not Federally Enforceable.** General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. The owner or operator shall:
 - a. Tightly cover or close all VOC or OS containers when they are not in use.
 - b. Immediately clean up VOC or OS spills and make sure wastes are placed in closed containers for reuse, recycling or proper disposal.[Rule 62-296.320(1)(a), F.A.C.]

7. Not Federally Enforceable. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. When performing sandblasting on fixed plant equipment, the facility shall construct temporary enclosures when practical and necessary, in order to prevent unconfined particulate emissions.
- b. Maintenance of paved areas as needed.
- c. Regular care of vegetation.
- d. Limiting access to plant property by unnecessary vehicles.
- e. Bagged chemical products shall be stored in buildings until they are used.
- f. Spills of powdered chemical products are cleaned up as soon as practicable.
- g. Sweeping paved roads with a wet vacuum truck.
- h. Watering, if necessary, the lime backwash residue holding area.

[Rule 62-296.320(4)(c)2., F.A.C.; Items 7.g. & h. proposed by applicant in the Additional Information Response received July 31, 1997]

{Note: This condition implements the requirements of Rules 62-296.320(4)(c)1., 3., & 4. F.A.C. (condition 57 of Appendix TV-1, dated 8/11/97).}

8. When appropriate, any recording, monitoring or reporting requirements that are time-specific shall be in accordance with the effective date of this permit, which define day one.

[Rule 62-213.440, F.A.C.]

9. Submittals. All reports, tests, notifications or other submittals required by this permit shall be submitted to the Palm Beach County Health Department's Air Section, and copies of those submittals shall be sent to the Department of Environmental Protection, Southeast District Office, Air Section. Addresses and telephone numbers are:

Palm Beach County Health Department
Air Section
PO Box 29
West Palm Beach, FL 33402-0029
Phone: 561/355-3070

Department of Environmental Protection
Southeast District Office, Air Section
PO Box 15425
West Palm Beach, FL 33416
Phone: 561/681-6600

Any reports, data, notifications, certifications and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Operating Permits Section
61 Forsyth Street
Atlanta, GA 30303
Phone: 404/562-9099
Fax: 404/562-9095

For Acid Rain submittals, submittals should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Acid Rain Section
61 Forsyth Street
Atlanta, GA 30303

10. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition No. 51., Appendix TV-1, Title V Conditions}
[Rule 62-214.420(11), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions units.

E.U. ID No.	Brief Description
001 - 005	Five 2000 kW diesel engine generators, an MP 36 Power Pack; each diesel generator is a model 567D4 manufactured by GM Electro Motive Division.

{Permitting note(s): These emissions units are regulated under Rule 62-296.570, F.A.C., NOx RACT.}

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

Essential Potential to Emit (PTE) Parameters

A.1. Methods of Operation - (i.e., Fuels). These emissions units shall burn only diesel fuel. [Rule 62-213.410, F.A.C.]

Emission Limitations and Standards

{Note: Emissions units 001 through 005 are also subject to the visible emissions standard of specific condition 3 of this permit.}

A.2. NOx RACT. Emissions of nitrogen oxides (NOx) from these emissions units shall not exceed 4.75 pounds per million Btu. [Rule 62-296.570, F.A.C.]

Test Methods and Procedures

A.3. NOx Testing. Compliance with the NOx emission limitation shall be demonstrated by annual emission testing in accordance with EPA Test Method 7E. [Rule 62-296.570, F.A.C.]

Monitoring of Operations

A.4. Annual Tests Required - NOx and VE. Except as provided in specific conditions **E.6** through **E.8** of this permit, emission testing for nitrogen oxide emissions and visible emissions shall be performed annually, no later than the end of each federal fiscal year (September 30), except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service. Annual compliance testing while firing oil is not required for units that operated on oil for less than 400 hours in the previous federal fiscal year (ending September 30th). [Rules 62-4.070(3) and 62-213.440, F.A.C.]

Record Keeping and Reporting Requirements

A.5. The owner or operator shall make and keep records of:

- a. The number of hours each emissions unit operates every calendar month; and
- b. The total fuel consumption of all five units combined each calendar month.

Such monthly records shall be prepared no later than fifteen days after the end of each month.

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

Common Conditions

A.6. This emissions unit is also subject to conditions **E.1** through **E.19**, except for **E.3**, **E.10**, **E.11** and **E.18**, contained in **Subsection E. Common Conditions**.

Subsection B. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
007	Fossil Fuel Steam Generating Unit 1 (S-1), nominally rated at 7.5 MW, 111 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil, with emissions exhausted through a 60 ft. stack

{Permitting note(s): The emissions unit is regulated under Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less than 250 million Btu per Hour Heat Input, and Rule 62-296.570, F.A.C., NOx RACT. Fossil fuel fired steam generator Unit 1 (S-1) began commercial operation in 1961.}

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

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum operation heat input rate is as follows:

Unit No.	mmBtu/hr Heat Input	Fuel Type
007	111	Natural Gas
	111	No. 6 Fuel Oil

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.406, F.A.C.]

B.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition E.14.

[Rule 62-297.310(2), F.A.C.]

B.3. Methods of Operation. Fuels.

a. Startup: The only fuel(s) allowed to be burned are any combination of natural gas and/or number 6 fuel oil.

b. Normal: The only fuel(s) allowed to be burned are any combination of natural gas and/or number 6 fuel oil.

[Rule 62-213.410, F.A.C.]

Emission Limitations and Standards

B.4. Visible Emissions. Visible emissions shall not exceed 20 percent opacity, except for one two-minute period per hour during which opacity shall not exceed 40 percent.

[Rule 62-296.406(1), F.A.C.]

B.5. Visible emissions - Soot Blowing and Load Change. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

[Rule 62-210.700(3), F.A.C.]

B.6. Particulate Matter. Particulate matter emissions shall be controlled by the firing of natural gas and/or low sulfur content liquid fuel. See specific condition **B.7.**

[Rules 62-4.070(3) and 62-296.406(2), F.A.C.]

B.7. Sulfur Dioxide - Sulfur Content. The No. 6 fuel oil sulfur content shall not exceed 2.25 percent, by weight. See specific condition **B.10.**

[Rules 62-4.070(3) and 62-296.406(3), F.A.C.; BACT for this unit assumed to equal the sulfur limit established by PPSC No. PA 74-05 for units S-3 and S-4]

B.8. NO_x RACT. Emissions of nitrogen oxides (NO_x) from these emissions units shall not exceed 0.50 pounds per million Btu while firing natural gas or number 6 fuel oil.

[Rule 62-296.570, F.A.C.]

Test Methods and Procedures

B.9. Sulfur Dioxide - Sulfur Content. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by fuel sampling and analysis. See specific conditions **B.7. and B.10.**

[Rules 62-213.440 and 62-296.406(3), F.A.C.]

B.10. Fuel Sampling & Analysis - Sulfur. For this emissions unit, the following fuel sampling and analysis protocol shall be used to demonstrate compliance with the fuel sulfur limitation of specific condition B.7 of this permit:

a. Sample the as-fired fuel oil each day fuel oil is fired.

b. Composite the daily samples and each month determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, or both ASTM D4057-88 and ASTM D129-95 (or latest editions) to analyze a representative sample of the composited as-fired fuel oil.

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

B.11. NO_x Testing. Compliance with the NO_x emission limitation shall be demonstrated by annual emission testing in accordance with EPA Test Method 7E.

[Rule 62-296.570, F.A.C.]

Monitoring of Operations

B.12. Annual Tests Required - NO_x and VE. Except as provided in specific conditions **E.6** through **E.8** of this permit, emission testing for nitrogen oxide emissions and visible emissions shall be performed annually, no later than the end of each federal fiscal year (September 30), except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service. Annual compliance testing while firing oil is not required for units that operated on oil for less than 400 hours in the previous federal fiscal year (ending September 30th).

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

Common Conditions

B.13. This emissions unit is also subject to conditions **E.1** through **E.19**, except for **E.2**, **E.9** and **E.18**, contained in **Subsection E. Common Conditions.**

Subsection C. This section addresses the following emissions units.

009	Fossil Fuel Steam Generating Unit 3 (S-3), nominally rated at 26.5 MW, 325.1 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil, with emissions exhausted through a 113 ft. stack
010	Fossil Fuel Steam Generating Unit 4, (S-4), nominally rated at 33 MW, 419.1 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil, with emissions exhausted through a 115 ft. stack

{Permitting note(s): The emissions units are regulated under Acid Rain, Phase II, Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input, and Rule 62-296.570, F.A.C., NOx RACT, Power Plant Siting Certification No. PA 74-05, and the modified conditions of PA 74-05 ordered September 28, 1987. Fossil fuel fired steam generator Unit 3 (S-3) began commercial operation in 1966; and, fossil fuel fired steam generator Unit 4 (S-4) began commercial operation in 1970. The permittee reported it operates the following continuous monitors for Unit S-3: SO₂, NO_x, CO₂, flow, visible emissions, and temperature.}

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

Essential Potential to Emit (PTE) Parameters

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

Unit No.	mmBtu/hr Heat Input	Fuel Type
009	325.1	Natural Gas
	325.1	No. 6 Fuel Oil
010	419.1	Natural Gas
	419.1	No. 6 Fuel Oil

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

C.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition E.14.
 [Rule 62-297.310(2), F.A.C.]

C.3. Methods of Operation. Fuels.

- a. Startup: The only fuel(s) allowed to be burned are any combination of natural gas and/or number 6 fuel oil.
- b. Normal: The only fuel(s) allowed to be burned are any combination of natural gas and/or number 6 fuel oil.

[Rule 62-213.410, F.A.C.]

Emission Limitations and Standards

C.4. Visible Emissions. Visible emissions shall not exceed 20 percent opacity, except for one two-minute period per hour during which opacity shall not exceed 40 percent. Emissions units

governed by this visible emissions limit shall compliance test for particulate matter emissions annually and as otherwise required by Chapter 62-297, F.A.C.

[Rule 62-296.405(1)(a), F.A.C.]

C.5. Visible Emissions - Soot Blowing and Load Change. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

(The following paragraph is applicable to emissions unit 009 (Unit S-3) and will become applicable to emissions unit 010 (Unit S-4) only upon installation of an operational continuous opacity monitor at Unit S-4.) Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this condition.

[Rule 62-210.700(3), F.A.C., Note: Unit S-3 has an operational continuous opacity monitor. Unit S-4 may install an operational continuous opacity monitor in the future, and at that time be allowed visible emissions greater than 60% opacity pursuant to Rule 62-210.700(3), F.A.C., and specific condition C.5 of this permit.]

C.6. Particulate Matter. Particulate matter emissions shall not exceed 0.1 pound per million Btu heat input, as measured by applicable compliance methods.

[Rule 62-296.405(1)(b), F.A.C.]

C.7. Particulate Matter - Soot Blowing and Load Change. Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

[Rule 62-210.700(3), F.A.C.]

C.8. Sulfur Dioxide - Sulfur Content. The No. 6 fuel oil sulfur content shall not exceed 2.25 percent, by weight. See specific condition **C.11**.

[Rules 62-4.070(3) and 62-213.440, F.A.C., and Power Plant Siting Certification No. PA 74-05]

C.9. NO_x RACT. Emissions of nitrogen oxides (NO_x) from these emissions units shall not exceed 0.50 pounds per million Btu while firing natural gas or number 6 fuel oil.

[Rule 62-296.570, F.A.C.]

Test Methods and Procedures

C.10. Particulate Matter. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17.

[Rules 62-213.440, 62-296.405(1)(e)2., and 62-297.401, F.A.C.]

C.11. Sulfur Dioxide - Sulfur Content. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by fuel sampling and analysis. See specific conditions **C.8. and C.12.** [Rules 62-213.440 and 62-296.406(3), F.A.C.]

C.12. Fuel Sampling & Analysis - Sulfur. For each emissions unit, the following fuel sampling and analysis protocol shall be used to demonstrate compliance with the the fuel sulfur limitation of specific condition **C.8** of this permit:

- a. Sample the as-fired fuel oil each day fuel oil is fired.
- b. Composite the daily samples and each month determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, or both ASTM D4057-88 and ASTM D129-95 (or latest editions) to analyze a representative sample of the composited as-fired fuel oil. Each composite sample shall also be analyzed for heating value.
- c. Record monthly the amount of each fuel fired, and maintain records of the monthly analyses of the heating value of each fuel, and the percent sulfur content by weight of each fuel, to enable calculations of sulfur dioxide emissions.

[Rules 62-4.070(3) and 62-213.440, F.A.C., and PPSC PA 74-05]

C.13. NOx Testing. Compliance with the NOx emission limitation shall be demonstrated by annual emission testing in accordance with EPA Test Method 7E, for emissions unit 010. If a continuous emission monitoring system (CEMS) for NOx is installed at emissions unit 010, compliance shall then be demonstrated by the CEMS. Compliance with the NOx emission limitation shall be demonstrated by a CEMS for emissions unit 009. See specific conditions **C.15** and **C.16.**

[Rule 62-296.570, F.A.C.]

Monitoring of Operations

C.14. Annual Tests Required - PM and VE. Except as provided in specific conditions **E.6** through **E.8** of this permit, emission testing for particulate matter emissions and visible emissions shall be performed annually, no later than the end of each federal fiscal year (September 30), except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service.

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

C.15. Annual NOx Tests Required - Unit 4 (S-4. Emissions Unit 010). For emissions unit 010, emission testing for NOx shall be performed annually, no later than the end of each federal fiscal year (September 30), except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service. Annual compliance testing while firing oil is not required for units that operated on oil for less than 400 hours in the previous federal fiscal year (ending September 30th).

Should the owner or operator install a continuous emission monitoring system (CEMS) for NOx emissions at emission unit 010, compliance with the NOx limitation shall be demonstrated with the CEMS. Compliance shall be based on a 30-day rolling average. The CEMS shall be properly maintained and operated and shall meet the performance specifications of 40 CFR 60,

Appendix B, or 40 CFR 75. The CEMS data shall be maintained on site for inspection by the Department.

[Rules 62-4.070(3), 62-213.410, F.A.C. and 62-296.570(4)(a)3. & 4.]

C.16. NO_x CEMS Required - Unit 3 (S-3. Emissions Unit 009). For emissions unit 009, compliance with the NO_x limitation shall be demonstrated with a continuous emission monitoring system (CEMS). Compliance shall be based on a 30-day rolling average, excluding periods of startup, shutdown or malfunction as provided by Rule 62-210.700, F.A.C. The CEMS shall be properly maintained and operated and shall meet the performance specifications of 40 CFR 60, Appendix B, or 40 CFR 75. The CEMS data shall be maintained on site for inspection by the Department and need not be submitted to the Department unless specifically requested. [Rules 62-4.070(3), 62-213.440, F.A.C. and 62-296.570(4)(a)4., and request of applicant]

Common Conditions

C.17. This emissions unit is also subject to conditions **E.1** through **E.19**, except for **E.2** and **E.9**, contained in **Subsection E. Common Conditions**.

Subsection D. This section addresses the following emissions units.

006	Gas Turbine # 1, (GT-1), manufactured by Westinghouse, nominally rated at 30 MW, 435 mmBtu/hr, capable of burning number 2 fuel oil, with emissions exhausted through a 46 ft. stack
011	Combined Cycle Unit, (GT-2/S-5), nominally rated at 29.5 MW, consists of a gas turbine (GT-2) nominally rated at 20 MW and a heat recovery steam generator (S5) nominally rated at 10 MW. GT-2 has a maximum heat input of 317.6 mmBtu/hr, capable of burning any combination of natural gas and number 2 fuel oil, with emissions exhausted through a 75 ft. stack

{Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required and Rule 62-296.570, F.A.C., NOx RACT. Emissions unit 011 is also regulated under Power Plant Siting Certification No. PA 74-05, and the modified conditions of PA 74-05 ordered September 28, 1987. Based on information submitted by the applicant in the Title V application, these emissions units are not subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines. Each combustion turbine has its own stack.. Emissions unit 006 (Unit GT-1) began commercial operation in 1976; and, emissions unit 011 (Unit GT-2/S-5) began commercial operation in 1978.}

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

Essential Potential to Emit (PTE) Parameters

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

Unit No.	mmBtu/hr Heat Input	Fuel Type
006	435	No. 2 Fuel Oil
011	317.6	Natural Gas
	317.6	No. 2 Fuel Oil

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

D.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition **E.14.**
 [Rule 62-297.310(2), F.A.C.]

D.3. Methods of Operation - Fuels.

- a. Emissions unit 006: Only number 2 fuel oil shall be fired in the combustion turbine.
- b. Emissions unit 011: Only any combination of natural gas and/or number 2 fuel oil shall be fired in the combustion turbine.

[Rule 62-213.410, F.A.C.]

Emission Limitations and Standards

{Note: Emissions unit 006 is also subject to the visible emissions standard of specific condition 3 of this permit.}

D.4. Sulfur Dioxide - Sulfur Content - Emissions Unit 011. For emissions unit 011 (Unit GT-2/S-5), the No. 2 fuel oil sulfur content shall not exceed 0.35 percent, by weight. See specific condition **D.6.**

[Rules 62-4.070(3) and 62-213.440, F.A.C., and Power Plant Siting Certification No. PA 74-05]

D.5. NOx RACT. Emissions of nitrogen oxides (NOx) from these emissions units shall not exceed 0.50 pounds per million Btu while firing natural gas and 0.90 pounds per million Btu while firing number 2 fuel oil.

[Rule 62-296.570, F.A.C.]

Test Methods and Procedures

D.6. Sulfur Dioxide - Sulfur Content - Emissions Unit 011. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by fuel sampling and analysis. See specific conditions **D.4. and D.7.**

[Rules 62-213.440 and 62-296.406(3), F.A.C.]

D.7. Fuel Sampling & Analysis - Sulfur - Emissions Unit 011. For each emissions unit, the following fuel sampling and analysis protocol shall be used to demonstrate compliance with the fuel sulfur limitation of specific condition **D.4** of this permit:

- a. Sample the as-fired fuel oil each day fuel oil is fired.
- b. Composite the daily samples and each month determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, or both ASTM D4057-88 and ASTM D129-95 (or latest editions) to analyze a representative sample of the composited as-fired fuel oil. Each composite sample shall also be analyzed for heating value.
- c. Record monthly the amount of each fuel fired, and maintain records of the monthly analyses of the heating value of each fuel, and the percent sulfur content by weight of each fuel, to enable calculations of sulfur dioxide emissions.

[Rules 62-4.070(3) and 62-213.440, F.A.C., and PPSC PA 74-05]

D.8. NOx Testing. Compliance with the NOx emission limitation shall be demonstrated by annual emission testing in accordance with EPA Test Method 7E.

[Rule 62-296.570, F.A.C.]

Monitoring of Operations

D.9. Annual Tests Required - NOx and VE. Except as provided in specific conditions **E.6** through **E.8** of this permit, emission testing for nitrogen oxide emissions and visible emissions shall be performed annually, no later than the end of each federal fiscal year (September 30), except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service. Annual compliance testing while firing oil is not required for units that operated on oil for less than 400 hours in the previous federal fiscal year (ending September 30th).

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

D.10. These emissions units are also subject to conditions **E.1** through **E.19**, except for **E.3**, **E.10**, **E.11** and **E.18**, contained in **Subsection E. Common Conditions.**

Subsection E. Common Conditions.

E.U. ID No.	Brief Description
001 - 005	Five 2000 kW diesel engine generators
007	Fossil Fuel Steam Generating Unit 1 (S-1)
009	Fossil Fuel Steam Generating Unit 3 (S-3)
010	Fossil Fuel Steam Generating Unit 4, (S-4)
006	Gas Turbine # 1, (GT-1)
011	Combined Cycle Unit, (GT-2/S-5)

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

E.1. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

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

Excess Emissions

E.2. (This condition is applicable only to emissions units 001 - 005, 006 and 011.) Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided (1) that best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

E.3. (This condition is applicable only to emissions units 007, 009 and 010.) Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.

Excess emissions resulting from malfunction shall be permitted provided (1) that best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1) & (2), F.A.C.]

E.4. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

E.5. Determination of Process Variables.

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

(c) Heat input rate shall be determined by average fuel use during testing (to be determined by fuel flow meters or fuel tank measurements) and the latest fuel analysis available from the vendor or operator (for Btu content of the fuel used).

{Permitting Note: The permittee and the Department agree that the CEMS used for the federal Acid Rain Program conservatively overestimates the heat input rate for Unit S-3 (emissions unit 009). The monitoring data for heat input is therefore not appropriate for purposes of compliance, including annual compliance certifications.}

[Rules 62-297.310(5) and 62-213.440, F.A.C., and request of applicant]

E.6. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) **General Compliance Testing.**

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

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

a. Did not operate; or

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

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - a. Visible emissions, if there is an applicable standard;
 - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
9. The owner or operator shall notify the Department, 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.

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

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

[Rule 62-297.310(7), F.A.C.]

E.7. When PM Tests Not Required. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or
- b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year.

[Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01.]

E.8. When VE Tests Not Required. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or

b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or

c. only liquid fuel(s) for less than 400 hours per year.

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

Test Methods and Procedures

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

E.9. (This condition is applicable only to emissions units 001 - 005, 006 and 011.) Visible Emissions - Turbines, Diesel Engine Generators. The test method for visible emissions for emissions units 006 (GT-1), 011 (GT-2/S-5), and 001 through 005 (diesel engine generators) shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.

[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C., and modified conditions of PA 74-05 ordered September 28, 1987]

E.10. (This condition is applicable only to emissions units 007, 009 and 010.) Visible Emissions - Boilers. The test method for visible emissions for emissions units 007 (S-1), 009 (S-3) and 010 (S-4) shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C. See specific condition E.11.

[Rule 62-296.405(1)(e)1., F.A.C.]

E.11. (This condition is applicable only to emissions units 007, 009 and 010.) DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

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

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

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

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

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each

of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.

[Rule 62-297.401, F.A.C.]

E.12. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

E.13. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

E.14. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

E.15. Applicable Test Procedures.

(a) **Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test

observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

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

E.16. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. Temporary stack sampling facilities under Rule 62-297.310(6)(b), F.A.C. may be used in lieu of permanent facilities. [Rule 62-297.310(6), F.A.C.]

Record Keeping and Reporting Requirements

E.17. Malfunctions - Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Palm Beach County Health Department's Air Section in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Palm Beach County Health Department's Air Section. [Rule 62-210.700(6), F.A.C.]

E.18. (This condition is applicable only to emissions units 009 and 010.) Excess Emissions - Report. Submit to the Palm Beach County Health Department's Air Section a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years. [Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

E.19. Test Reports

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Palm Beach County Health Department's Air Section on the results of each such test.
- (b) The required test report shall be filed with the Palm Beach County Health Department's Air Section as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Palm Beach County Health Department's Air Section to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Section IV. This section is the Acid Rain Part.

Operated by: City of Lake Worth

ORIS code: 0673

Subsection A. This subsection addresses Acid Rain, Phase II.

The emissions unit(s) listed below are regulated under Acid Rain, Phase II.

E.U. ID No.	Brief Description
009	Fossil Fuel Steam Generator, Unit 3, (S-3)
010	Fossil Fuel Steam Generator, Unit 4, (S-4)

A.1. The Phase II permit application(s) submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed: DEP Form No. 62-210.900(1)(a), dated 07/01/95.

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

A.2. Sulfur dioxide (SO₂) allowance allocations for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2000	2001	2002
009	S-3	SO₂ allowances, under Table 2 or 3 of 40 CFR Part 73	9*	9*	9*
010	S-4	SO₂ allowances, under Table 2 or 3 of 40 CFR Part 73	80*	80*	80*

* The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

A.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

1. No permit revision shall be required for increase in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

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

[Rule 62-213.413, F.A.C.]

A.5. Comments, notes, and justifications: None.

**Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
(version dated 02/05/97)**

Abbreviations and Acronyms:

°F: Degrees Fahrenheit
BACT: Best Available Control Technology
CFR: Code of Federal Regulations
DEP: State of Florida, Department of Environmental Protection
DARM: Division of Air Resource Management
EPA: United States Environmental Protection Agency
F.A.C.: Florida Administrative Code
F.S.: Florida Statute
ISO: International Standards Organization
LAT: Latitude
LONG: Longitude
MMBtu: million British thermal units
MW: Megawatt
ORIS: Office of Regulatory Information Systems
SOA: Specific Operating Agreement
UTM: Universal Transverse Mercator

Citations:

The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers, and ID numbers.

Code of Federal Regulations:

Example: [40 CFR 60.334]

Where:	40	reference to	Title 40
	CFR	reference to	Code of Federal Regulations
	60	reference to	Part 60
	60.334	reference to	Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:

Example: [Rule 62-213, F.A.C.]

Where:	62	reference to	Title 62
	62-213	reference to	Chapter 62-213
	62-213.205	reference to	Rule 62-213.205, F.A.C.

ISO: International Standards Organization refers to those conditions at 288 degrees K, 60 percent relative humidity, and 101.3 kilopascals pressure.

**Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
(continued)**

Identification Numbers:

Facility Identification (ID) Number:

Example: Facility ID No.: 1050221

Where:

105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by state database.

Permit Numbers:

Example: 1050221-002-AV, or
1050221-001-AC

Where:

AC = Air Construction Permit
AV = Air Operation Permit (Title V Source)
105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by permit tracking database
001 or 002 = 3-digit sequential project number assigned by permit tracking database

Example: PSD-FL-185
PA95-01
AC53-208321

Where:

PSD = Prevention of Significant Deterioration Permit
PA = Power Plant Siting Act Permit
AC = old Air Construction Permit numbering

Appendix E-1, List of Exempt Emissions Units and/or Activities

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Full Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining whether a facility containing such emissions units or activities would be subject to any applicable requirements. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., are also exempt from the permitting requirements of Chapter 62-213, F.A.C., provided such emissions units and activities also meet the exemption criteria of Rule 62-213.430(6)(b), F.A.C. The below listed emissions units and/or activities are hereby exempt pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities
1. Dust collector hopper discharge valve for Unit S-3
2. Liquid propane gas emergency generator

Appendix H-1, Permit History/ID Number Changes

Permit History (for tracking purposes):

E.U. ID No.	Description	Permit No.	Issue Date	Expiration Date	Extended Date ^{1,2}	Revised Date(s)
001	Diesel Generator #1 Peaking Unit	AO 50-172357	01/18/90	07/17/94		
002	Diesel Generator #2 Peaking Unit	AO 50-172357	01/18/90	07/17/94		
003	Diesel Generator #3 Peaking Unit	AO 50-172357	01/18/90	07/17/94		
004	Diesel Generator #4 Peaking Unit	AO 50-172357	01/18/90	07/17/94		
005	Diesel Generator #5 Peaking Unit	AO 50-172357	01/18/90	07/17/94		
006	Combustion Gas Turbine #1 (GT-1)	AO 50-219177 AC 50-2168A AC 50-2168	11/06/92 09/10/76 09/28/73	10/30/97 09/01/77 03/01/75		
007	Fossil Fuel Steam Generator Unit #1 (S-1)	AO 50-169444	01/31/96	09/15/96		
008	Fossil Fuel Steam Generator Unit #2 (S-2)*					
009	Fossil Fuel Steam Generator Unit #3 (S-3)	AO 50-169444 PA - 74-05	01/31/96 05/18/76	09/15/96		09/28/87 03/27/96
010	Fossil Fuel Steam Generator Unit #4 (S-4)	AO 50-169444 PA - 74-05	01/31/96 05/18/76	09/15/96		09/28/87 03/27/96
011	Combined Cycle Gas Turbine (GT-2/S-5)	PA - 74-05	05/18/76			09/28/87 03/27/96
001 - 005, 006, 007, 009, 010	Diesel engine generators #1 - 5 GT-1 S-1 S-3 S-4	0990045-001-AO (amendment of AO 50-169444, AO 50-172357, AO 50-219177, for NOx RACT)	01/31/96			

ID Number Changes (for tracking purposes):

From: **Facility ID No.:** 50PMB500045

To: **Facility ID No.:** 0990045

Notes:

1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.

2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.

{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

* Unit S-2 is not in service. Operation of this unit is not permitted by this permit.

Appendix U-1, List of Unregulated Emissions Units and/or Activities

Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither ‘regulated emissions units’ nor ‘exempt emissions units’.

E.U. ID

No.	Brief Description of Emissions Units and/or Activity
012	Fuel oil storage tanks (tanks 10 & 11, both 20,134 gallons capacity, and tank 12, 140,785 gallons capacity) subject to NSPS, Subpart Kb.*
013	Fuel oil storage tanks (tanks 3, 4, 5, 6, and 8), lube oil tanks, fittings and pumps.

* The owner or operator shall keep readily accessible records showing the dimension of each storage vessel (tank) and an analysis showing the capacity of each storage vessel (tank), and shall retain the records as long as each tank remains at the facility.

**Appendix S
 Permit Summary Tables**

Table 1-1, Summary of Air Pollutant Emission Standards

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit		Brief Description							
001 - 005		Five 2000 kW diesel engine generators							
			Allowable Emissions			Equivalent Emissions			
Pollutant	Fuel(s)	Hours per Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citations	See Permit Condition(s)
VE	Diesel Fuel	8760	20% opacity					Rule 62-296.320(4)(b), F.A.C.	Section II, Condition 3
NOx	Diesel Fuel	8760	4.75 lb/mmBtu			99.8	436.91	Rules 62-296.570., F.A.C.	A.2

Note for EU 001 - 005: Equivalent emissions are listed for each diesel generator.

Appendix S
Permit Summary Tables

Table 1-1, Continued

Emissions Unit		Brief Description							
007		Fossil Fuel Steam Generating Unit 1 (S-1), nominally rated at 7.5 MW, 111 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil							
		Allowable Emissions				Equivalent Emissions			
Pollutant	Fuel(s)	Hours per Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citations	See Permit Condition(s)
VE Steady State	Oil, Natural Gas	8760	20% opacity, except for 40% for 2 min. each hour					Rule 62-296.406(1), F.A.C.	B.4
VE Soot Blowing or Load Change	Oil, Natural Gas	8760	60% opacity					Rule 62-210.700(3), F.A.C.	B.5
SO ₂ (& PM)	Oil, Natural Gas	8760	2.25% S by weight, fuel oil			267* (oil)	1,170* (oil)	Rules 62-4.070(3) & 296.406(3), F.A.C.	B.7
NO _x	Oil, Natural Gas	8760	0.5 lb/mmBtu			56	243	Rules 62-296.570, F.A.C.	B.8

* Equivalent emissions are for SO₂ emissions firing fuel oil.

Appendix S
Permit Summary Tables

Table 1-1, Continued

Emissions Unit		Brief Description							
009		Fossil Fuel Steam Generating Unit 3 (S-3), nominally rated at 26.5 MW, 325.1 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil							
010		Fossil Fuel Steam Generating Unit 4, (S-4), nominally rated at 33 MW, 419.1 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil							
			Allowable Emissions			Equivalent Emissions			
Pollutant	Fuel(s)	Hours per Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citations	See Permit Condition(s)
VE Steady State	Oil, Natural Gas	8760	20% opacity, except for 40% for 2 min. each hour					Rule 62-296.405(1)(a), F.A.C.	C.4
VE Soot Blowing or Load Change	Oil, Natural Gas	8760	60 % opacity (>60% opacity for not more than 4, six-minute periods)					Rule 62-210.700(3), F.A.C.	C.5
PM Steady State	Oil, Natural Gas	8760	0.1 lb/mmBtu			33 (EU 009) 42 (EU 010)	142 (EU 009) 184 (EU 010)	Rule 62-296.405(1)(b), F.A.C.	C.6
PM Soot Blowing or Load Change	Oil, Natural Gas	8760	0.3 lb/mmBtu			99 (EU 009) 126 (EU 010)	426 (EU 009) 552 (EU 010)	Rule 62-210.700(3), F.A.C.	C.7

**Appendix S
 Permit Summary Tables**

Table 1-1, Continued, Emissions Units 009 & 010

Pollutant	Fuel(s)	Hours per Year	Allowable Emissions			Equivalent Emissions ¹		Regulatory Citations	See Permit Condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
SO ₂	Oil, Natural Gas	8760	2.25% S by weight, fuel oil			832 (EU 009) (oil) 1072 (EU 010) (oil)	1072 (EU 009) (oil) 4695 (EU 010) (oil)	Rule 62-213.440, F.A.C. & PPSC No. PA 74-05	C.8
NO _x	Oil, Natural Gas	8760	0.5 lb/mmBtu			163 (EU 009) 210 (EU 010)	712 (EU 009) 918 (EU 010)	Rules 62- 296.570, F.A.C.	C.9

Appendix S
 Permit Summary Tables

Table 1-1, Continued

Emissions Unit		Brief Description							
006		Gas Turbine #.1, (GT-1), nominally rated at 30 MW, 435 mmBtu/hr, capable of burning number 2 fuel oil							
011		Combined Cycle Unit, (GT-2/S-5), nominally rated at 29.5 MW, consists of a gas turbine (GT-2) nominally rated at 20 MW and a heat recovery steam generator (S5) nominally rated at 10 MW. GT-2 has a maximum heat input of 317.6 mmBtu/hr, capable of burning any combination of natural gas and number 2 fuel oil							
			Allowable Emissions			Equivalent Emissions			
Pollutant	Fuel(s)	Hours per Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citations	See Permit Condition(s)
VE	Oil ^a , Natural Gas ^b	8760	20% Opacity					Rule 62-296.320(4)(b), F.A.C.	Section II, Condition 3
SO ₂ (EU 011 only)	Oil, Natural Gas	8760	0.35% S by weight, fuel oil			109 (oil)	478 (oil)	Rule 62-213.440, F.A.C. & PPSC No. PA 74-05	D.4
NO _x (EU 006)	Oil ^a , Natural Gas ^b	8760	0.90 lb/mmBtu (fuel oil) 0.50 lb/mmBtu (natural gas)			392 218	1715 953	Rules 62-570, F.A.C.	D.5
NO _x (EU 011)	Oil ^a , Natural Gas ^b	8760	0.90 lb/mmBtu (fuel oil) 0.50 lb/mmBtu (natural gas)			286 159	1252 696	Rules 62-570, F.A.C.	D.5

a Number 2 fuel oil may be fired in emissions unit 006 or 011.

b Natural gas may be fired in emissions unit 011.

**Appendix S
 Permit Summary Tables**

Table 1-1, Continued

Emissions Unit		Brief Description							
012		Fuel oil storage tanks (tanks 10 & 11, both 20,134 gallons capacity, and tank 12, 140,785 gallons capacity) subject to NSPS, Subpart Kb							
			Allowable Emissions			Equivalent Emissions ¹			
Pollutant	Fuel(s)	Hours per Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citations	See Permit Condition(s)
None		8760	No emission limits - record keeping only						F.2, F.3

Notes for all tables:

¹ The "Equivalent Emissions" listed are for informational purposes only.

**Appendix S
 Permit Summary Tables**

Table 2-1, Summary of Compliance Requirements

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
001 - 005	Five 2000 kW diesel engine generators

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
NOx	Diesel Fuel	EPA Test Method 7E	Annual	February 28th	3 hours	No	A.3 & A.4
VE	Diesel Fuel	EPA Method 9	Annual	February 28th	30 min.	No	A.4 & E.9

Emissions Unit	Brief Description
007	Fossil Fuel Steam Generating Unit 1 (S-1), nominally rated at 7.5 MW, 111 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
SO₂	Oil, Natural Gas	Fuel sampling & analysis	Sampling daily, analysis of monthly composite			No	B.7, B.9 & B.10
NOx	Oil, Natural Gas	EPA Test Method 7E	Annual	February 28th	3 hours	No	B.11 & B.12
VE	Oil, Natural Gas	DEP Method 9	Annual	February 28th	1 hour	No	B.12 & E.10

**Appendix S
 Permit Summary Tables**

Table 2-1, Continued

Emissions Unit		Brief Description					
009		Fossil Fuel Steam Generating Unit 3 (S-3), nominally rated at 26.5 MW, 325.1 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil					
010		Fossil Fuel Steam Generating Unit 4, (S-4), nominally rated at 33 MW, 419.1 mmBtu/hr, capable of burning any combination of natural gas and number 6 fuel oil					
Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
SO ₂	Oil, Natural Gas	Fuel sampling & analysis	Sampling daily, analysis of monthly composite			No ^a	C.8, C.11 & C.12
NO _x (EU 009)	Oil, Natural Gas	CEMS	Continuous			Yes	C.13 & C.16
NO _x (EU 010)	Oil, Natural Gas	EPA Test Method 7E (If CEMS installed see next row)	Annual	February 28th	3 hours	No	C.13 & C.15
NO _x (EU 010)	Oil, Natural Gas	CEMS (If installed)	Continuous			Yes, if installed for Acid Rain	C.13 & C.15
PM	Oil, Natural Gas	EPA Test Methods 17,5,5B or 5F	Annual	February	3 hours	No	C.10 & C.14
VE	Oil, Natural Gas	DEP Method 9	Annual	February 28th	1 hour	Yes	C.14 & E.10

Note for EU 009 & 010:

a A continuous monitor for SO₂ is operated by the City for emissions unit 009. Compliance with the fuel sulfur limitation is not via the continuous monitor.

Appendix S
 Permit Summary Tables

Table 2-1, Continued

Emissions Unit	Brief Description
006	Gas Turbine # 1, (GT-1), nominally rated at 30 MW, 435 mmBtu/hr, capable of burning number 2 fuel oil
011	Combined Cycle Unit, (GT-2/S-5), nominally rated at 29.5 MW, consists of a gas turbine (GT-2) nominally rated at 20 MW and a heat recovery steam generator (S5) nominally rated at 10 MW. GT-2 has a maximum heat input of 317.6 mmBtu/hr, capable of burning any combination of natural gas and number 2 fuel oil

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
SO ₂ (Emissions Unit 011 only)	Oil, Natural Gas	Fuel sampling & analysis	Sampling daily, analysis of monthly composite			No	D.4, D.6 & D.7
NO _x	Oil, Natural Gas	EPA Test Method 7E	Annual	February 28th	3 hours	No	D.8 & D.9
VE	Oil, Natural Gas	EPA Method 9	Annual	February 28th	1 hour	No	D.9 & E.9

**Appendix S
 Permit Summary Tables**

Table 2-1, Continued

Emissions Unit	Brief Description
012	Fuel oil storage tanks (tanks 10 & 11, both 20,134 gallons capacity, and tank 12, 140,785 gallons capacity) subject to NSPS, Subpart Kb

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
Capacity		Record keeping					F.2 & F.3

Notes for all tables:

¹ Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.

² CMS = continuous monitoring system

Appendix TV-1, the Title V Core Conditions, has been provided only to the applicant. The most recent version of these conditions may be obtained from the Department's Internet Web site at:

<http://www.dep.state.fl.us/air/>

If you do not have access to the Internet and would like a copy of Appendix TV, please contact Joseph Kahn, P.E., Department of Environmental Protection, Division of Air Resources Management, Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400, 850/488-1344.

An electronic version of this permit is also available from the Department's Internet Web site above.