

THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of an
Application for Permit by:

OGC No. 97-1487

City of Lake Worth Utilities
1900 2nd Avenue North
Lake Worth, Florida 33461

DRAFT Permit No.: 0990045-002-AV
Tom G. Smith Power Plant and
Lake Worth Water Treatment Plant
Palm Beach County

**NOTICE OF WITHDRAWAL OF REQUEST
FOR EXTENSION OF TIME**

City of Lake Worth Utilities (Lake Worth) by and through undersigned counsel, hereby withdraws its Request for Extension of Time to file a petition for formal administrative proceedings in accordance with Chapter 120, Florida Statutes. Lake Worth filed a Request for Extension of Time on October 17, 1997, in response to the "Intent to Issue Title V Air Operation Permit" (Permit No. 0990045-002-AV) for the Tom G. Smith Power Plant and Lake Worth Water Treatment Plant located in Palm Beach County, Florida, to negotiate certain changes in the draft Title V permit with the Department of Environmental Protection (Department). Lake Worth withdraws its Request because the Department has agreed to issue the permit with changes negotiated with Lake Worth, as reflected in the attached document received on October 17, 1997 (Exhibit A), and revised on October 20, 1997 (Exhibit B).

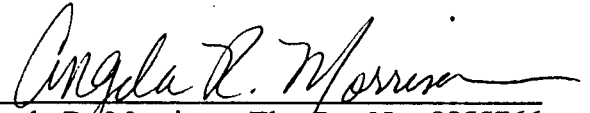
RECEIVED

OCT 23 1997

BUREAU OF
AIR REGULATION

Respectfully submitted this 22nd day of October, 1997.

HOPPING GREEN SAMS & SMITH, P.A.



Angela R. Morrison, Fla. Bar No. 0855766
123 South Calhoun Street
Post Office Box 6526
Tallahassee, FL 32314
(904) 222-7500

Attorney for CITY OF LAKE WORTH
UTILITIES

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing has been furnished to the following
by U.S. Mail on this 22nd day of October, 1997:

Clair H. Fancy, P.E.
Chief
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2600

Jeffrey Brown
Office of General Counsel
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2600

A handwritten signature in cursive script, reading "Angela L. Morrison", is written over a horizontal line.

100595

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV
Page DRAFT DOCUMENT

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.

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV

Page DRAFT DOCUMENT

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

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. The facility constructs temporary sandblasting enclosures when necessary, in order to perform sandblasting on fixed plant equipment.
- b. Maintenance of paved areas as needed.
- c. Regular mowing of grass and care of vegetation.
- d. Limiting access to plant property by unnecessary vehicles.
- e. Bagged chemical products are stored in weather-tight 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).}

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV
Page DRAFT DOCUMENT

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 - 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.]

Since the City has agree 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.

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV
Page DRAFT DOCUMENT

[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.

(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). The heat input determined by the CEMS for Unit S-3 (emissions unit 009) shall not be used to demonstrate compliance with the heat input limitation.

[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

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV
Page DRAFT DOCUMENT

(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.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:

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV
Page DRAFT DOCUMENT

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.]

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.

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV
Page DRAFT DOCUMENT

- 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.

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

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV
Page DRAFT DOCUMENT

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:

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
-----	---	----------------------------	----------------------	----------	--	----------------------

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV
Page DRAFT DOCUMENT

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:

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.

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV
Page DRAFT DOCUMENT

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

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

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0990045-002-AV
Page DRAFT DOCUMENT

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.]

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.]

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

NOx (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
NOx (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 NOx RACT rule, Rule 62-296.570(4)(a)4, F.A.C. See NOx CEMS above.

City of Lake Worth Utilities

DRAFT Permit No.: 0990045-002-AV

Tom G. Smith Power Plant and Lake Worth Water Treatment Plant

Page 5 of 22

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 IV-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

TO: MARGARET JOHNSON
 FROM: SUSAN DEVALE
 10/20/97
 FAX # 561-
 586-1702

City of Lake Worth Utilities

DRAFT Permit No.: 0990045-002-AV

Tom G. Smith Power Plant and Lake Worth Water Treatment Plant

Page 6 of 22

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.]