



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

June 23, 1997

Ms. Carla Pierce, Chief
Operating Source Section
Air & Radiation Technology Branch, APTMD
U.S. EPA - Region 4
61 Forsyth Street
Atlanta, GA 30303

Re: PROPOSED Title V Permit No.: 1050003-004-AV
Charles Larsen Memorial Power Plant

Dear Ms. Danois:

One copy of the "PROPOSED PERMIT DETERMINATION" for the Charles Larsen Memorial Power Plant located at 2002 East Highway 92, Lakeland, Polk County, is enclosed. A "Title V Permit Application Summary Form" is also enclosed.

Please submit any written comments on the PROPOSED Title V Air Operation Permit within 45 (forty five) days of the receipt of this letter to Scott M. Sheplak, P.E., at the above letterhead address.

If you have any other questions, please contact Edward J. Svec at 904/488-1344.

Sincerely,

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

CHF/s

Enclosures

copy furnished to:
Ronald W. Tomlin, Lakeland Electric & Water Utilities
Kennard Kosky, P.E., Golder Associates
Farzie Shelton, Lakeland Electric & Water Utilities
Bill Thomas, P.E., FDEP SWD

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 1050003-004-AV

Page 1 of 8

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" to Lakeland Electric & Water Utilities for the Charles Larsen Memorial Power Plant located at 2002 East Highway 92, Lakeland, Polk County was clerked on April 23, 1997. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was published in The Ledger on May 14, 1997. The DRAFT Title V Air Operation Permit was available for public inspection at the Southwest District office in Tampa 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 May 21, 1997.

II. Public Comment(s).

Comments were received 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. Comments were received from one respondent(s) during the 30 (thirty) day public comment period. Listed below is each comment letter in the chronological order of receipt and a response to each comment in the order that the comment was received. The comment(s) will not be restated. Where duplicative comments exist, the original response is referenced.

A. Letter from Ms. Farzie Shelton dated May 13, 1997, and received on May 13, 1997.

1. R: The City requested in a supplemental submittal to their original application that propane and No. 2 fuel oil be included in the Title V permit as startup fuels. There was no indication in any submittal that the fuels permitted for normal operation would also be employed as startup fuels. However, since the affected units are regulated under Rule 62-295.405, F.A.C., which limits emissions by a pound value per million Btu heat input, the Department does not object to the inclusion of these fuels with the requested startup fuels. As a result of this comment, specific conditions **A.3.** and **B.3.** are changed as follows:

From:

A.3. Methods of Operation. Fuel(s).

- a. Startup: The only fuels allowed to be burned are propane or No. 2 fuel oil.
- b. Normal: The only fuels allowed to be burned are natural gas, No. 6 fuel oil, or a combination of natural gas and No. 6 fuel oil. When a blend of fuel oil and natural gas is fired, the heat input is prorated based on the percent heat input of each fuel.

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

B.3. Methods of Operation. Fuel(s).

- a. Startup: The only fuels allowed to be burned are propane or No. 2 fuel oil.
- b. Normal: The only fuels allowed to be burned are natural gas, No. 6 fuel oil, or a combination of natural gas and No. 6 fuel oil. When a blend of fuel oil and natural gas is fired, the heat input is prorated based on the percent heat input of each fuel.
[Rule 62-213.410, F.A.C.]

To:

A.3. Methods of Operation. Fuel(s).

- a. Startup: The only fuels allowed to be burned are propane, No. 2 fuel oil, natural gas, No. 6 fuel oil, or any combination of these fuels.
- b. Normal: The only fuels allowed to be burned are natural gas, No. 6 fuel oil, or a combination of natural gas and No. 6 fuel oil. When a blend of liquid and gaseous fuel is fired, the heat input is prorated based on the percent heat input of each fuel.
[Rule 62-213.410, F.A.C.]

B.3. Methods of Operation. Fuel(s).

- a. Startup: The only fuels allowed to be burned are propane, No. 2 fuel oil, natural gas, No. 6 fuel oil, or any combination of these fuels.
- b. Normal: The only fuels allowed to be burned are natural gas, No. 6 fuel oil, or a combination of natural gas and No. 6 fuel oil. When a blend of liquid and gaseous fuel is fired, the heat input is prorated based on the percent heat input of each fuel.
[Rule 62-213.410, F.A.C.]

2. R: The comment requesting the standard for sulfur dioxide be changed to a three-hour standard has been withdrawn by the representative of the City of Lakeland at a meeting held on June 16, 1997.

The Department does not agree that the maximum heat input specified by the permittee in the Title V application should be a three hour average. This value is a not to exceed maximum and will remain unchanged.

The City also requests that the fuel heating value and the fuel flow meter be identified as a compliance method in the permit conditions. Although the Department feels that common condition **E.1.**, which addresses the required equipment and its accuracy for the determination of process variables, adequately addresses this concern, language will be added to the conditions addressing capacity for Units 6 and 7. As a result of this comment, specific conditions **A.1.** and **B.1.** are changed, as follows:

From:

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

<u>Unit No.</u>	<u>MMBtu/hr Heat</u>	<u>Fuel Type</u>
	<u>Input</u>	
6	286.5	Natural Gas
	305.9	No. 6 Fuel Oil

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

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

<u>Unit No.</u>	<u>MMBtu/hr Heat</u>	<u>Fuel Type</u>
	<u>Input</u>	
7	615.6	Natural Gas
	597.6	No. 6 Fuel Oil

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

To:

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

<u>Unit No.</u>	<u>MMBtu/hr Heat</u>	<u>Fuel Type</u>
	<u>Input</u>	
6	286.5 (HHV)	Natural Gas
	305.9 (HHV)	No. 6 Fuel Oil

Compliance with the heat input limits shall be determined based on the higher heating value (HHV) of the fuels used and fuel flow meter data.

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

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

<u>Unit No.</u>	<u>MMBtu/hr Heat</u>	<u>Fuel Type</u>
	<u>Input</u>	
7	615.6 (HHV)	Natural Gas
	597.6 (HHV)	No. 6 Fuel Oil

Compliance with the heat input limits shall be determined based on the higher heating value (HHV) of the fuels used and fuel flow meter data.

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

3. R: The EPA has commented previously that the fuel analyses methods are federally enforceable and this change will not be made. However, the Department agrees that the permittee can also provide the fuel analysis. As a result of this comment, specific conditions **A.14.**, **B.14.**, and **C.9.** are changed as follows:

From:

A.14. Sulfur Dioxide. The permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor upon each fuel delivery. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **A.10., A.19. and A.20.**
[Rule 62-296.405(1)(f)1.b., F.A.C.]

B.14. Sulfur Dioxide. The permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor upon each fuel delivery. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **B.10., B.19. and B.20.**
[Rule 62-296.405(1)(f)1.b., F.A.C.]

C.9. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor upon each fuel delivery. See specific condition **C.12.**
[Rule 62-213.440, F.A.C.]

To:

A.14. Sulfur Dioxide. The permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **A.10., A.19. and A.20.**
[Rule 62-296.405(1)(f)1.b., F.A.C.]

B.14. Sulfur Dioxide. The permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **B.10., B.19. and B.20.**
[Rule 62-296.405(1)(f)1.b., F.A.C.]

C.9. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor or the permittee upon each fuel delivery. See specific condition **C.12.**
[Rule 62-213.440, F.A.C.]

4. R: It is the Department's intent that the heat input rates become federally enforceable in that the rates define the capacity of the units for purposes of establishing emission limits, establishing unit capacity for testing purposes, and establishing a base for the determination of future rule applicability.

The Department recognizes that heat input curves for the gas turbines have been submitted with the Title V application. These conditions require that the curves be submitted with the compliance test report when the units are tested at less than capacity. The condition will remain as noticed. However, the Department agrees that the heat inputs for the turbines should reference a temperature. The Department was informed in the meeting of June 16, 1997, that the temperature requested by the City of Lakeland in their comment letter was incorrect and did not agree with the turbine curves. The City of Lakeland provided the correct values in a letter received June 17, 1997. The Department assumes that this submittal now contains the correct information. As a result of this comment, specific conditions **C.1.** and **D.1.** are changed as follows:

From:

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

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
3	209	Natural Gas
	209	No. 2 Fuel Oil
2	209	Natural Gas
	209	No. 2 Fuel Oil
1	209	Natural Gas
	209	No. 2 Fuel Oil

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

D.1. Permitted Capacity. The maximum process/operation rate is 1055 MMBtu per hour (lower heating value) heat input firing natural gas and 1040 MMBtu per hour (lower heating value) heat input firing No. 2 distillate oil.

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

To:

C.1. Permitted Capacity. The maximum operation heat input rates, at an inlet temperature of 20 degrees F when firing natural gas and at an inlet temperature of 25 degrees F when firing No. 2 fuel oil, are as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
3	209	Natural Gas
	209	No. 2 Fuel Oil
2	209	Natural Gas
	209	No. 2 Fuel Oil
1	209	Natural Gas
	209	No. 2 Fuel Oil

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

D.1. Permitted Capacity. The maximum process/operation rate, at an inlet temperature of 25 degrees F, is 1055 MMBtu per hour (lower heating value) heat input firing natural gas or 1040 MMBtu per hour (lower heating value) heat input firing No. 2 distillate oil. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

5. R: These emissions limits were in the PSD permit and some of the limits were established by the BACT process (such as the short term carbon monoxide limit). They remain applicable requirements until they are deleted from the permit. To avoid any confusion, the word “by” will be added to specific condition **D.31**. As a result of this comment, specific condition **D.31**. will be changed as follows:

From:

D.31. Sulfuric Acid Mist. Compliance with the sulfuric acid mist standard shall be demonstrated using natural gas or 0.2 percent sulfur, by weight, No. 2 distillate oil. [Rules 62-213.440, 62-297.310, and 62-297.401, F.A.C.; and, PSD-FL-166]

To:

D.31. Sulfuric Acid Mist. Compliance with the sulfuric acid mist standard shall be demonstrated by using natural gas or 0.2 percent sulfur, by weight, No. 2 distillate oil. [Rules 62-213.440, 62-297.310, and 62-297.401, F.A.C.; and, PSD-FL-166]

6. R: Specific condition **D.26**. addresses the monitoring device that determines the fuel consumption and the water-to-fuel ratio which shows compliance at the four loads. The monitoring device will be gauged to the four loads which have been ISO corrected. The emissions are not ISO corrected. Specific condition **D.27**. sets the test method for showing compliance with the nitrogen oxides and sulfur dioxide standards. Since these conditions are quotes of 40 CFR 60, the language cannot be changed by the Department. The Department will add a permitting note and an additional specific condition which will clarify the requirements of annual compliance testing of nitrogen oxides. As a result of this comment, a permitting note will be added following the emission limits for nitrogen oxides and an additional specific condition addressing annual compliance for nitrogen oxides will be added.

Add:

{Permitting note: Since the BACT limit established for nitrogen oxides is more stringent than the NSPS limit, compliance with the nitrogen oxides BACT limits of specific conditions **D.4**. and **D.5**. is assumed to show compliance with the nitrogen oxides limit of 40 CFR 60.332.}

D.28. Initial compliance with the nitrogen oxides limit pursuant to 40 CFR 60.8 was conducted August 3-7, 1992. For annual compliance purposes, compliance with the nitrogen oxides limits of specific conditions **D.4.** and **D.5.** will be determined using EPA Method 20 and testing at capacity as defined by specific condition **D.36.** Correction to ISO conditions is not required for the annual compliance test.
[Rule 62-297.310, F.A.C.]

The addition of new specific condition **D.28.** will also require the renumbering of all the specific conditions following the new condition.

7. R: Both emissions units are permitted to fire either natural gas or fuel oil for 8,760 hours per year. The frequency for particulate matter testing when firing fuel oil is set in Chapter 62-297, F.A.C. The authority to grant an ASP is also contained in Rule 62-297.620, F.A.C. The "and" statement implies that there can be requirements in Chapter 62-297, F.A.C., that allow for less than annual particulate testing. The conditions will remain as noticed.

8. R: Under the current rules, the requirements of a Standards of Performance for New Stationary Sources (NSPS) and the State's excess emissions rules are separate. The requirements from all applicable rules are to be incorporated in a Title V permit. Since this emissions unit is regulated for pollutants in addition to those regulated by the Subpart, both the NSPS excess emission requirements and the State's excess emission provisions apply to this emissions unit. If the NSPS, as claimed in the comment, does not limit the period of excess emissions, then the State's requirements would be applicable because they limit the duration of a malfunction to two hours in a 24 hour period and startup/shutdown excess emissions to a duration based on best operational practices. Both the state and federal requirements would apply to the emissions unit. The conditions will remain as noticed.

9. R: The Department acknowledges the comments on the summary tables. The requirement for no particulate matter stack test when firing natural gas is referenced in the "See Permit Conditions" column. The duration of a stack test is one hour and it is repeated three times. Visible emissions tests are required regardless of the type of fuel fired. Rules require that testing be performed prior to permit renewal, at a minimum. The frequency base date is not affected by the fact that no future testing is required. The tables are general summaries of the permit and are to be used for informational purposes, only. The corresponding permit condition reference is included for the convenience of the user of the table. The tables were never meant to address every possible operating scenario.

The City of Lakeland has again requested that the frequency base date in Table 2-1 be changed for emissions units ID -003 and -004 (a.k.a. Units Nos. 6 and 7). This REVISED DRAFT Permit was issued because of the volume of comments received from the City of Lakeland on the DRAFT Permit. In their comment letter received December 4, 1996, and a follow-up letter received February 10, 1997, the City of Lakeland requested dates of May 30 for emission unit 003 and June 30 for emission unit 004 "to be consistent with the most current permits for the Larsen units". Now they want the date changed to July 1 so that the date will be consistent with a permit amendment dated April 19, 1996. The Department will again change the frequency base dates in Table 2-1 for emissions units -003 and -004 to July 1.

10. R: These conditions have been researched and all current conditions that have not been flagged are either part of the State Implementation Plan or a Federally Delegated Program, such as Title V. The comment on Rule 62-4.040(1)(a), F.A.C., was withdrawn by a representative of the City of Lakeland at a meeting on June 16, 1997. The conditions contained in Appendix TV-1, Title V Conditions will remain as noticed.

11. R: The Department acknowledges the comment. When the changes are made to the construction permit, the Title V permit will need to be revised to incorporate the revised conditions.

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

B. Document(s) on file with the permitting authority:

- Letter received May 13, 1997, from Ms. Farzie Shelton.
- Letter received June 17, 1997, from Ms. Farzie Shelton.

III. Conclusion.

The permitting authority will issue the PROPOSED Permit No.: 1050003-004-AV, with any changes noted above.

Lakeland Electric & Water Utilities
Charles Larsen Memorial Power Plant
Facility ID No.: 1050003
Polk County

Initial Title V Air Operation Permit
PROPOSED Permit No.: 1050003-004-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: 904/488-1344
Fax: 904/922-6979

Initial Title V Air Operation Permit
PROPOSED Permit No.: 1050003-004-AV

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Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

Permittee:

Lakeland Electric & Water Utilities
501 East Lemon Street
Lakeland, Florida 33801-5079

PROPOSED Permit No.: 1050003-004-AV

Facility ID No.: 1050003

SIC Nos.: 49, 4911

Project: Initial Title V Air Operation Permit

This permit is for the operation of the Charles Larsen Memorial Power Plant. This facility is located at 2002 East Highway 92, Lakeland, Polk County; UTM Coordinates: Zone 17, 408.9 km East and 3102.5 km North; Latitude: 28° 2' 56" North and Longitude: 81° 55' 25" 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 E-1, List of Exempt Emissions Units and/or Activities

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

APPENDIX TV-1, TITLE V CONDITIONS

APPENDIX SS-1, STACK SAMPLING FACILITIES

FIGURE 1 - SUMMARY REPORT - GASEOUS AND OPACITY EXCESS

EMISSIONS AND MONITORING SYSTEMS PERFORMANCE REPORT

Phase II Acid Rain Application/Compliance Plan received December 26, 1995

Alternate Sampling Procedure ASP Number 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/es

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of two fossil fuel-fired steam generators, one combined cycle combustion turbine and three simple cycle gas turbine peaking units. Natural gas and oil are the primary fuels. Also included in this permit are miscellaneous unregulated/exempt emissions units and/or activities.

Based on the initial Title V permit application received June 14, 1996, this facility is not a major source of HAPs.

Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions.

E.U. ID

<u>No.</u>	<u>Brief Description</u>
-003	Fossil Fuel Fired Steam Generator #6
-004	Fossil Fuel Fired Steam Generator #7
-005	Peaking Gas Turbine #3
-006	Peaking Gas Turbine #2
-007	Peaking Gas Turbine #1
-008	Combined Cycle Combustion Turbine
-xxx	Emergency generators
-xxx	General purpose engines
-xxx	Surface coatings with VOC content >5% by volume
-xxx	Sand Blasting
-xxx	Parts Washing

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:

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

Table 2-1, Summary of Compliance Requirements

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

Appendix H-1, Permit History / ID Number Changes

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 14, 1996

Additional Information Request dated October 16, 1996

Additional Information Response received October 16, 1996

Update to Initial Title V Application dated February 7, 1997

Letter received May 13, 1997 from Ms. Farzie Shelton

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, (Version dated 02/27/97), 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. 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]

4. 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.]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.

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

6. 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 permittee shall keep containers of paint solvents and thinners closed.

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

7. 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).

[Rule 62-296.320(4)(b)1., F.A.C.]

8. **Not federally enforceable.** The permittee shall take reasonable precautions to prevent emissions of unconfined particulate matter at this facility include: maintenance of paved areas, regular mowing of grass and care of vegetation, and limiting access to plant property of unnecessary vehicles.
[Rule 62-296.320(4)(c)2., F.A.C.,]

{Permit note: The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southwest District office.}

Section III. Emissions Units.

Subsection A. This section addresses the following emissions unit.

E.U. ID

No.

Brief Description

-003

Fossil Fuel Fired Steam Generator #6

Fossil fuel fired steam generator #6 is a nominal 25 megawatt (electric) steam generator designated as Charles Larsen Memorial Power Plant Unit #6. This emission unit is fired on No. 6 fuel oil at a maximum heat input of 305.9 MMBtu per hour, or natural gas at a maximum heat input of 286.5 MMBtu per hour. Unit #6 began commercial service in 1959.

{Permitting note(s): The emissions unit is regulated under Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per Hour Heat Input.}

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

Essential Potential to Emit (PTE) Parameters

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

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
6	286.5 (HHV)	Natural Gas
	305.9 (HHV)	No. 6 Fuel Oil

Compliance with the heat input limits shall be determined based on the higher heating value (HHV) of the fuels used and fuel flow meter data.

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

A.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition **A.21.**

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

A.3. Methods of Operation. Fuel(s).

a. Startup: The only fuels allowed to be burned are propane, No. 2 fuel oil, natural gas, No. 6 fuel oil, or any combination of these fuels.

b. Normal: The only fuels allowed to be burned are natural gas, No. 6 fuel oil, or a combination of natural gas and No. 6 fuel oil. When a blend of liquid and gaseous fuel is fired, the heat input is prorated based on the percent heat input of each fuel.

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

A.4. Hours of Operation. This emissions unit may operate continuously, i.e., 8,760 hours/year.

[Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting Note: The attached 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.}

A.5. 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.]

A.6. 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.]

A.7. 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.]

A.8. 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.]

A.9. Sulfur Dioxide. When burning liquid fuel, sulfur dioxide emissions shall not exceed 2.75 pounds per million Btu heat input, as measured by applicable compliance methods.
[Rule 62-296.405(1)(c)1.j., F.A.C.]

A.10. Sulfur Dioxide - Sulfur Content. The No. 6 fuel oil sulfur content shall not exceed 2.50 percent, by weight. See specific condition A.20.
[Rule 62-296.405(1)(e)3., F.A.C.; and, requested in a letter dated February 7, 1997.]

Excess Emissions

A.11. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and 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.]

A.12. 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.

[Rule 62-210.700(2), F.A.C.]

A.13. 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

A.14. Sulfur Dioxide. The permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions A.10., A.19. and A.20.

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

A.15. This emissions unit is also subject to the conditions contained in **Subsection E. Common Conditions.**

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.}

A.16. Visible emissions. The test method for visible emissions 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 A.17.

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

A.17. 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.]

A.18. 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 62-296.405(1)(e)2. and 62-297.401, F.A.C.]

A.19. Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. **The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor upon each fuel delivery. See specific conditions A.10. and A.20.**

[Rules 62-213.440, 62-296.405(1)(e)3. and 62-297.401, F.A.C.]

A.20. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]

A.21. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at 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.

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

A.22. General Compliance Testing. 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.

[Rule 62-297.310(7)(a)2., F.A.C.]

A.23. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fossil fuels; or
- b. gaseous fossil fuels in combination with any amount of liquid and/or solid fuels for less than 400 hours per year; or
- c. only liquid and/or solid fuels for less than 400 hours per year.

[Rule 62-297.310(7)(a)4., F.A.C.]

A.24. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

- a. only gaseous fossil fuels; or
- b. gaseous fossil fuels in combination with any amount of liquid and/or solid fuels for less than 400 hours per year; or
- c. only liquid and/or solid fuels for less than 400 hours per year.

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

A.25. Cold Standby. If the emissions unit is on cold standby when the annual compliance test is required, the compliance test may be postponed until after startup. Compliance testing shall be conducted within 30 days of startup.

[Rule 62-210.300(2)(a)4., F.A.C.; and, AO 53-175871.]

A.26. This emissions unit is also subject to the conditions contained in **Subsection E. Common Conditions.**

Record keeping and Reporting Requirements

A.27. Submit to the Department or the appropriate Local Program 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.]

A.28. This emissions unit is also subject to the conditions contained in **Subsection E. Common Conditions.**

Section III. Emissions Unit(s) and Conditions.

Subsection B. This section addresses the following emissions unit.

E.U. ID

No.

Brief Description

-004 Fossil Fuel Fired Steam Generator #7

Fossil fuel fired steam generator #7 is a nominal 50 megawatt (electric) steam generator designated as Charles Larsen Memorial Power Plant Unit #7. This emission unit is fired on No. 6 fuel oil at a maximum heat input of 597.6 MMBtu per hour, or natural gas at a maximum heat input of 615.6 MMBtu per hour. Unit #7 began commercial service in 1966.

{Permitting note(s): The emissions unit is regulated under Acid Rain, Phase II and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per Hour Heat Input.}

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

Essential Potential to Emit (PTE) Parameters

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

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
7	615.6 (HHV)	Natural Gas
	597.6 (HHV)	No. 6 Fuel Oil

Compliance with the heat input limits shall be determined based on the higher heating value (HHV) of the fuels used and fuel flow meter data.

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

B.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition **B.21.**

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

B.3. Methods of Operation. Fuel(s).

a. Startup: The only fuels allowed to be burned are propane, No. 2 fuel oil, natural gas, No. 6 fuel oil, or any combination of these fuels.

b. Normal: The only fuels allowed to be burned are natural gas, No. 6 fuel oil, or a combination of natural gas and No. 6 fuel oil. When a blend of liquid and gaseous fuel is fired, the heat input is prorated based on the percent heat input of each fuel.

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

B.4. Hours of Operation. This emissions unit may operate continuously, i.e., 8,760 hours/year.

[Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting Note: The attached 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.}

B.5. 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.]

B.6. 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.7. 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.]

B.8. 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.]

B.9. Sulfur Dioxide. When burning liquid fuel, sulfur dioxide emissions shall not exceed 2.75 pounds per million Btu heat input, as measured by applicable compliance methods.
[Rule 62-296.405(1)(c)1.j., F.A.C.]

B.10. Sulfur Dioxide - Sulfur Content. The No. 6 fuel oil sulfur content shall not exceed 2.50 percent, by weight. See specific condition **B.20.**
[Rule 62-296.405(1)(e)3., F.A.C.; and, requested in a letter dated February 7, 1997.]

Excess Emissions

B.11. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and 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.]

B.12. 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.

[Rule 62-210.700(2), F.A.C.]

B.13. 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

B.14. Sulfur Dioxide. The permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **B.10.**, **B.19.** and **B.20.**

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

B.15. This emissions unit is also subject to the conditions contained in **Subsection E. Common Conditions.**

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.}

B.16. Visible emissions. The test method for visible emissions 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 **B.17.**

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

B.17. 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.]

B.18. 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 62-296.405(1)(e)2. and 62-297.401, F.A.C.]

B.19. Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. **The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor upon each fuel delivery. See specific conditions B.10. and B.20.**

[Rules 62-213.440, 62-296.405(1)(e)3. and 62-297.401, F.A.C.; and, AO 53-175870]

B.20. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]

B.21. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at 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.

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

B.22. General Compliance Testing. 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.

[Rule 62-297.310(7)(a)2., F.A.C.]

B.23. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fossil fuels; or
- b. gaseous fossil fuels in combination with any amount of liquid and/or solid fuels for less than 400 hours per year; or
- c. only liquid and/or solid fuels for less than 400 hours per year.

[Rule 62-297.310(7)(a)4., F.A.C.]

B.24. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

- a. only gaseous fossil fuels; or
- b. gaseous fossil fuels in combination with any amount of liquid and/or solid fuels for less than 400 hours per year; or
- c. only liquid and/or solid fuels for less than 400 hours per year.

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

B.25. Cold Standby. If the emissions unit is on cold standby when the annual compliance test is required, the compliance test may be postponed until after startup. Compliance testing shall be conducted within 30 days of startup.

[Rule 62-210.300(2)(a)4., F.A.C.]

B.26. This emissions unit is also subject to the conditions contained in **Subsection E. Common Conditions.**

Record keeping and Reporting Requirements

B.27. Submit to the Department or the appropriate Local Program 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.]

B.28. This emissions unit is also subject to the conditions contained in **Subsection E. Common Conditions.**

[Rule 62-296.405(e)3., F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection C. This section addresses the following emissions units.

E.U. ID

<u>No.</u>	<u>Brief Description</u>
-005	Peaking Gas Turbine #3
-006	Peaking Gas Turbine #2
-007	Peaking Gas Turbine #1

The gas turbine peaking units are fired with natural gas, or No. 2 fuel oil with a maximum sulfur content of 0.50 percent by weight. The maximum heat input rate for each gas turbine is 209 MMBtu per hour and each unit is rated at 11.5 megawatts (electric). Emissions from the gas turbines are uncontrolled. Turbines #1, #2 and #3 began commercial service in 1962.

{Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. These 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.}

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, at an inlet temperature of 20 degrees F when firing natural gas and at an inlet temperature of 25 degrees F when firing No. 2 fuel oil, are as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
3	209	Natural Gas
	209	No. 2 Fuel Oil
2	209	Natural Gas
	209	No. 2 Fuel Oil
1	209	Natural Gas
	209	No. 2 Fuel Oil

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

C.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition C.13.
[Rule 62-297.310(2), F.A.C.]

C.3. Methods of Operation - Fuels. Only natural gas or distillate (No. 2) fuel oil shall be fired in the turbines.

[Rules 62-4.160(2) and 62-213.440(1), F.A.C.]

C.4. Hours of Operation. These emissions unit(s) may operate continuously, i.e., 8,760 hours/year.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AO 53-238714]

Emission Limitations and Standards

{Permitting Note: The attached 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.}

C.5. Visible Emissions. Visible emissions from each turbine shall not be equal to or greater than 20 percent opacity.
[Rule 62-296.320(4)(b)1., F.A.C.; and, AO 53-238714]

C.6. Not federally enforceable. Sulfur Dioxide - Sulfur Content. The sulfur content of the No. 2 fuel oil shall not exceed 0.5 percent, by weight.
[AO 53-238714]

Excess Emissions

C.7. Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and 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.]

C.8. 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

C.9. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor or the permittee upon each fuel delivery. See specific condition **C.12.**
[Rule 62-213.440, F.A.C.]

C.10. 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.

[Rule 62-297.310(5), 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.}

C.11. The test method for visible emissions 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.]

C.12. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91.

[Rules 62-213.440 and 62-297.440, F.A.C.]

C.13. Operating Rate During Testing. Not federally enforceable.

a. Testing of emissions shall be conducted with each emissions unit operating at permitted capacity, which is defined as 95-100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test.

b. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 105 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report.

[Requested in a letter dated February 7, 1997.]

C.14. Applicable Test Procedures.

(a) Required Sampling Time.

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.

[Rule 62-297.310(4)(a)2., F.A.C.]

C.15. 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.

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;

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.

10. An annual compliance test conducted for visible emissions shall not be required for units exempted from permitting at Rule 62-210.300(3)(a), F.A.C., or units permitted under the General Permit provisions at Rule 62-210.300(4), F.A.C.

(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 shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(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.; and, AO 53-238714]

C.16. Visible Emissions Testing - Annual. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

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

[Rules 62-297.310(7)(a)4. & 8., F.A.C.]

Recordkeeping and Reporting Requirements

C.17. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department 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 Department.

[Rule 62-210.700(6), F.A.C.]

C.18. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
 - (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- [Rule 62-297.310(8), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection D. This section addresses the following emissions unit.

E.U. ID

No.

Brief Description

-008 Combined Cycle Combustion Turbine

The emission unit is a 120 megawatt combined cycle combustion gas turbine with a heat recovery steam generator (HRSG) designated as Larsen Unit #8. The combustion turbine fires natural gas as the primary fuel, and No. 2 distillate oil with a maximum sulfur content of 0.20 percent by weight as a limited auxiliary fuel. The combustion turbine is a GE Model PG7111 (EA) Frame 7 unit equipped with water injection to reduce nitrogen oxides emissions. The HRSG powers an existing steam turbine. The emissions unit can exhaust through the HRSG or through a by-pass stack. Turbine #8 began commercial service in July, 1992.

{Permitting note(s): The emissions unit is regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines; adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Prevention of Significant Deterioration (PSD) in Rule 62-212.400, F.A.C.; and Best Available Control Technology (BACT), dated July 26, 1991, in Rule 62-212.410, F.A.C.}

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

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity. The maximum process/operation rate, at an inlet temperature of 25 degrees F, is 1055 MMBtu per hour (lower heating value) heat input firing natural gas or 1040 MMBtu per hour (lower heating value) heat input firing No. 2 distillate oil.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

D.2. Methods of Operation. Fuels.

- a. This emissions unit fires natural gas as the primary fuel and No. 2 distillate oil as the secondary fuel.
 - b. The consumption of No. 2 distillate oil shall not exceed 8,190 gallons per hour and 23,914,800 gallons per year.
 - c. The maximum annual firing of No. 2 distillate oil shall not exceed 1/3 of the annual capacity factor.
 - d. The maximum sulfur content of the No. 2 distillate oil shall not exceed 0.20 percent by weight.
- [Rules 62-210.200(PTE), 62-212.400, and 62-212.410, F.A.C.; and, PSD-FL-166]

D.3. Hours of Operation. This emissions unit 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.}

D.4. Nitrogen Oxides. The NO_x emissions shall not exceed 25 ppmv at 15 percent oxygen on a dry basis and 425 tons per year when firing natural gas.
[Rule 62-212.400(6), F.A.C.; and, PSD-FL-166]

D.5. Nitrogen Oxides. The NO_x emissions shall not exceed 42 ppmv at 15 percent oxygen on a dry basis and 244 tons per year when firing No. 2 distillate oil.
[Rule 62-212.400(6), F.A.C.; and, PSD-FL-166]

{Permitting note: Since the BACT limit established for nitrogen oxides is more stringent than the NSPS limit, compliance with the nitrogen oxides BACT limits of specific conditions **D4.** and **D.5.** is assumed to show compliance with the nitrogen oxides limit of 40 CFR 60.332.}

D.6. Sulfur Dioxide. The SO₂ emissions shall not exceed 8.6 tons per year when firing natural gas.
[Rule 62-212.400(6), F.A.C.; and, PSD-FL-166]

D.7. Sulfur Dioxide. The SO₂ emissions shall not exceed 307 tons per year when firing No. 2 distillate oil. The maximum sulfur content of the No. 2 distillate oil shall not exceed 0.20 percent by weight.
[Rule 62-212.400(6), F.A.C.; and, PSD-FL-166]

D.8. PM/PM₁₀. The PM/PM₁₀ emissions shall not exceed 0.006 pound per MMBtu heat input and 22 tons per year when firing natural gas.
[Rule 62-212.400(6), F.A.C.; and, PSD-FL-166]

D.9. PM/PM₁₀. The PM/PM₁₀ emissions shall not exceed 0.025 pound per MMBtu heat input and 22 tons per year when firing No. 2 distillate oil.
[Rule 62-212.400(6), F.A.C.; and, PSD-FL-166]

D.10. Sulfuric Acid Mist. The sulfuric acid mist emissions shall not exceed 0.8 ton per year when firing natural gas.
[Rule 62-212.400(6), F.A.C.; and, PSD-FL-166]

D.11. Sulfuric Acid Mist. The sulfuric acid mist emissions shall not exceed 9.13 ton per year when firing No. 2 distillate oil. The maximum sulfur content of the No. 2 distillate oil shall not exceed 0.20 percent by weight.
[Rule 62-212.400(6), F.A.C.; and, PSD-FL-166]

D.12. Visible Emissions. Visible emissions shall not exceed 10 percent opacity.
[Requested in initial Title V permit application dated June 14, 1996; and, AC 53-190437 and PSD-FL-166]

D.13. Volatile Organic Compounds. Volatile Organic Compounds emissions shall not exceed 9 tons per year when firing natural gas or 22 tons per year when firing oil.
[AC 53-190437 and PSD-FL-166]

D.14. Carbon Monoxide. Carbon Monoxide emissions shall not exceed 25 ppmv at 15 percent oxygen on a dry basis and 232 tons per year when firing natural gas or 79 tons per year when firing oil.
[AC 53-190437 and PSD-FL-166]

D.15. Mercury. Mercury emissions shall not exceed 3.0×10^{-6} pounds per million Btu heat input and 0.003 ton per year when firing oil.
[AC 53-190437 and PSD-FL-166]

D.16. Lead. Lead emissions shall not exceed 2.8×10^{-5} pounds per million Btu heat input and 0.03 ton per year when firing oil.
[AC 53-190437 and PSD-FL-166]

D.17. Beryllium. Beryllium emissions shall not exceed 2.5×10^{-6} pounds per million Btu heat input and 0.003 ton per year when firing oil.
[AC 53-190437 and PSD-FL-166]

Excess Emissions

D.18. Excess emissions from this emissions unit resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and 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.]

D.19. 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

D.20. At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

D.21. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG and using water injection to control NO_x emissions shall operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within ± 5.0 percent and shall be approved by the Administrator.

[40 CFR 60.334(a)]

D.22. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

(1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

(2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).

[40 CFR 60.334(b)(1) & (2)]

{Permitting note: **No. 2 distillate oil is only supplied with intermediate bulk storage; and, a custom fuel schedule has been established for natural gas.**}

D.23. This emissions unit is also subject to the conditions contained in **Subsection E. Common Conditions.**

D.24. The permittee shall monitor sulfur content and nitrogen content of natural gas fired in the turbine as follows:

Custom Fuel Monitoring Schedule for Natural Gas

1. Monitoring of fuel nitrogen content shall not be required when firing natural gas.
2. Sulfur Monitoring:
 - a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the EPA approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-90(94)E-1; ASTM D3031-81(86); ASTM D3246-92; and ASTM D4084-94 as referenced in 40 CFR 60.335(b)(2).
 - b. Sulfur monitoring shall be conducted once per quarter for six quarters, beginning on July 1, 1996.
 - c. If the sulfur monitoring required for natural gas by 2(b) above shows little variability and the calculated sulfur dioxide emissions represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per year. This monitoring shall be conducted during the first and third quarters of each calendar year.
 - d. Should any sulfur analysis as required by items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.333 the City will notify the Department of Environmental Protection of such excess emission and the customized fuel monitoring schedule shall be re-examined.
3. The City will notify the Department of Environmental Protection of any change in natural gas supply for reexamination of this monitoring schedule. A substantial change in natural gas quality (i.e., sulfur content varying greater than 10 grains/1000 cf of gas) shall be considered as a change in natural gas supply. Sulfur content of the natural gas will be monitored weekly during the interim period when this monitoring schedule is being reexamined.
4. Records of sampling analysis and natural gas supply pertinent to this monitoring schedule shall be retained by the City for a period of three years, and shall be available for inspection by appropriate regulatory personnel.
5. The City will obtain the sulfur content of the natural gas from Florida Gas Transmission Company. [40 CFR 60.334(b)(2); and, AC 53-190437 and PSD-FL-166]

Test Methods and Procedures

{Permitting note: 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.}

D.25. To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired.

[40 CFR 60.335(a)]

D.26. When determining compliance with 40 CFR 60.332, Subpart GG - Standards of Performance for Stationary Gas Turbines, the monitoring device of 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted NO_x standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

[40 CFR 60.335(c)(2)]

D.27. The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 as follows:

c. U.S. EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NO_x emissions shall be determined at each of the load conditions specified in 40 CFR 60.335(c)(2).

[40 CFR 60.335(c)(3)]

D.28. Initial compliance with the nitrogen oxides limit pursuant to 40 CFR 60.8 was conducted August 3-7, 1992. For annual compliance purposes, compliance with the nitrogen oxides limits of specific conditions **D.4.** and **D.5.** will be determined using EPA Method 20 and testing at capacity as defined by specific condition **D.36.** Correction to ISO conditions is not required for these annual compliance tests. [Rule 62-297.310, F.A.C.]

D.29. The owner or operator shall determine compliance with the sulfur content standard of 0.20 percent, by weight, as follows: ASTM D 2880-96 shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, or D 3246-92 shall be used for the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.

[40 CFR 60.335(d)]

D.30. To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335 (a) and 40 CFR 60.335(d) of 40 CFR 60.335 to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency. [40 CFR 60.335(e)]

D.31. PM/PM₁₀. The test methods for PM/PM₁₀ emissions when firing oil shall be EPA Methods 5, 5B or 17, incorporated by reference in Chapter 62-297, F.A.C. The opacity emissions test may be used unless 10% opacity is exceeded. [Rules 62-213.440, 62-297.310, and 62-297.401, F.A.C.; and, PSD-FL-166]

D.32. Sulfuric Acid Mist. Compliance with the sulfuric acid mist standard shall be demonstrated by using natural gas or 0.2 percent sulfur, by weight, No. 2 distillate oil. [Rules 62-213.440, 62-297.310, and 62-297.401, F.A.C.; and, PSD-FL-166]

D.33. Visible Emissions. The test method for visible emissions shall be EPA Method 9, incorporated by reference in Chapter 62-297, F.A.C. [Rules 62-213.440, 62-297.310, and 62-297.401, F.A.C.; and, PSD-FL-166]

D.34. Volatile Organic Compounds, Carbon Monoxide, Mercury, Lead and Beryllium. The initial compliance test requirement for these pollutants has been satisfied and no further tests are required. [AC 53-190437 and PSD-FL-166]

D.35. Frequency of Compliance Tests. General Compliance Testing. 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. [Rule 62-297.310(7)(a)8., F.A.C.]

D.36. Operating Rate During Testing. Not federally enforceable. Testing of emissions shall be conducted with the source operating at capacity. Capacity is defined as 95-100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 105 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report. When testing shows that NO_x emissions exceed the standard when operating at capacity, the permittee shall recalibrate the NO_x emission control system using emission testing at four loads as required in Subpart GG. [Requested in a letter dated February 7, 1997.]

D.37. This emissions unit is also subject to the conditions contained in **Subsection E. Common Conditions**.

Record Keeping and Reporting Requirements

D.38. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:

a. *Nitrogen oxides.* Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the permitted nitrogen oxide standard by the initial performance test required in 40 CFR 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the initial performance test. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).

[Rule 62-296.800, F.A.C.; and, 40 CFR 60.334(c)(1)]

D.39. The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate).

Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)(1), (2), (3), & (4)]

D.40. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d)(1) & (2)]

D.41. This emissions unit is also subject to the conditions contained in **Subsection E. Common Conditions.**

Miscellaneous Requirements.

D.42. Unless the Department has determined that other ambient concentrations are required to protect the public health and safety, predicted ambient air concentrations (AAC) shall not exceed the following levels for the pollutants shown:

Pollutant	Florida Air Reference Concentrations (ug/cubic meter)		
	8 hr. avg.	24 hr. avg.	Annual avg.
Beryllium	0.02	0.005	0.0004
Lead	1.5	0.36	0.09
Inorganic mercury compounds, all forms of vapor, as Hg	---	---	0.3

[AC 53-190437 and PSD-FL-166]

D.43. Definitions. For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.

[40 CFR 60.2; and, Rule 62-204.800(7)(a), F.A.C.]

D.44. Circumvention. No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[40 CFR 60.12]

Subsection E. Common Conditions.

E.U. ID

<u>No.</u>	<u>Brief Description</u>
-003	Fossil Fuel Fired Steam Generator #6
-004	Fossil Fuel Fired Steam Generator #7
-008	Combined Cycle Combustion Turbine

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

Monitoring of Operations

E.1. 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.

[Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

E.2. 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.3. 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 three separate test runs unless otherwise specified in a particular test method or applicable rule.

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

E.4. 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.5. The permittee shall comply with the requirements contained in APPENDIX SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.]

TABLE 297.310-1
CALIBRATION SCHEDULE

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, When 5% change observed, Annually 2. One Point: Semiannually 3. Check after each test series	Spirometer or calibrated wet test or dry gas test meter	2%
		Comparison check	5%

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.

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 and/or solid 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

c. Each NESHAP pollutant, if there is an applicable emission standard.

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.

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.

10. An annual compliance test conducted for visible emissions shall not be required for units exempted from permitting at Rule 62-210.300(3)(a), F.A.C., or units permitted under the General Permit provisions at Rule 62-210.300(4), F.A.C.

(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 shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(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.]

Record Keeping and Reporting Requirements

E.7. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department 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 Department.
[Rule 62-210.700(6), F.A.C.]

E.8. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department 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 Department 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 Lakeland
ORIS code: 0675

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

The emissions units listed below are regulated under Acid Rain Part, Phase II.

E.U.

<u>ID No.</u>	<u>Description</u>
-004	Fossil Fuel Fired Steam Generator #7
-008	Combined Cycle Combustion Turbine #8

A.1. The Phase II application 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 units must comply with the standard requirements and special provisions set forth in the application listed below:

- a. 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 and nitrogen oxide (NO_x) requirements for each Acid Rain unit is as follows: [insert appropriate table. Table format:

<u>E.U. ID</u> <u>No.</u>	EPA ID	Year	2000	2001	2002
-004	ID No. 7	SO ₂ allowances, under Table 2 or 3 of 40 CFR Part 73	303*	303*	303*
		NO _x limit	**	**	**
-008	ID No. 8	SO ₂ allowances, under Table 2 or 3 of 40 CFR Part 73	659*	659*	659*
		NO _x limit	**	**	**
-xxx	ID No. 9***	SO ₂ allowances, under Table 2 or 3 of 40 CFR Part 73	0*	0*	0*
		NO _x limit	**	**	**

* 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.]

** If applicable, by January 1, 1999, this Part will be reopened to add NO_x requirements in accordance with the regulations implementing section 407 of the Clean Air Act.

*** Reported in USEPA under Table 2, 3, or 4 of 40 CFR 73 but not included in the Title V application.

A.3. Comments, notes, and justifications: None.

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

Lakeland Electric & Water Utilities
Charles Larsen Memorial Power Plant

PROPOSED Permit No.: 1050003-004-AV
Facility ID No.: 1050003

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. Tank T-01 Distillate Fuel Oil No. 2
2. Tank T-02 Distillate Fuel Oil No. 2
3. Tank T-03 Residual Oil No. 6
4. Tank T-04 Residual Oil No. 6
5. Comfort heating with a maximum heat output of less than 1 MMBtu per hour
6. Internal combustion engines used for the transportation of passengers or freight
7. Non-industrial vacuum cleaning equipment
8. Refrigeration units
9. Vacuum pumps for labs
10. Steam cleaning equipment
11. Sanders of less than 5 square feet used exclusively on wood, plastic or their products
12. Space heating equipment other than boilers
13. Bakery ovens
14. Lab equipment
15. Brazing, soldering or welding equipment
16. Laundry dryers
17. Fire and safety equipment
18. Surface coatings with VOC content <5% by volume

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

Lakeland Electric & Water Utilities
Charles Larsen Memorial Power Plant

PROPOSED Permit No.: 1050003-004-AV
Facility ID No.: 1050003

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

<u>No.</u>	<u>Brief Description of Emissions Units and/or Activity</u>
-xxx	Emergency generators
-xxx	General purpose engines
-xxx	Surface coatings with VOC content >5% by volume
-xxx	Sand Blasting
-xxx	Parts Washing

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

Lakeland Electric & Water Utilities
Charles Larsen Memorial Power Plant

PROPOSED Permit No.: 1050003-004-AV
Facility ID No.: 1050003

E.U. ID No. Brief Description
-003 Fossil Fuel Fired Steam Generator #6

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

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See Permit Condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
PM	Oil	8,760	0.1 lb/MMBtu			30.59	134.0	62-296.405 (1)(b) FAC	III. A.7.
PM	Gas	8,760	0.1 lb/MMBtu			28.65	125.5	62-296.405 (1)(b) FAC	III. A.7.
PM	Oil	N/A	0.3 lb/MMBtu - 3hrs in any 24 hr period			91.77	402.0	62-210.700 (3) FAC	III. A.8.
PM	Gas	N/A	0.3 lb/MMBtu - 3 hrs in any 24 hr period			85.95	376.5	62-210.700 (3) FAC	III. A.8.
SO ₂	Oil	8,760	2.75 lb/MMBtu			841.2	3684	62-296.405(1)(c)1.j.FA	III. A.9.
SO ₂	Oil	8,760	No. 6 fuel oil 2.50% S by wt.			841.2	3684	Requested limit	III. A.10.
VE	Oil	8,760	20% opacity except 40% for 2 min /hr				N/A	62-296.405(1)(a) FAC	III. A.5.
VE	Gas	8,760	20% opacity except 40% for 2 min /hr				N/A	62-296.405(1)(a) FAC	III. A.5.
VE	Oil	N/A	60% opacity 3 hrs in any 24 hr period soot blowing or load change				N/A	62-210.700(3) FAC	III. A.6.
VE	Gas	N/A	60% opacity 3 hrs in any 24 hr period soot blowing or load change				N/A	62-210.700(3) FAC	III. A.6.
Notes: * The "Equivalent Emissions" listed are for informational purposes only. N/A : Not Applicable									

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

Lakeland Electric & Water Utilities
Charles Larsen Memorial Power Plant

PROPOSED Permit No.: 1050003-004-AV
Facility ID No.: 1050003

E.U. ID No. Brief Description

-004 Fossil Fuel Fired Steam Generator #7

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

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See Permit Condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
PM	Oil	8,760	0.1 lb/MMBtu			59.78	261.7	62-296.405 (1)(b) FAC	III. B.7.
PM	Gas	8,760	0.1 lb/MMBtu			61.56	269.6	62-296.405 (1)(b) FAC	III. B.7.
PM	Oil	N/A	0.3 lb/MMBtu - 3hrs in any 24 hr period			179.3	785.2	62-210.700 (3) FAC	III. B.8.
PM	Gas	N/A	0.3 lb/MMBtu - 3 hrs in any 24 hr period			184.7	808.9	62-210.700 (3) FAC	III. B.8.
SO ₂	Oil	8,760	2.75 lb/MMBtu			1643	7198	62-296.405(1)(c)1.j.FAC	III. B.9.
SO ₂	Oil	8,760	No. 6 fuel oil 2.50% S by wt.			841.2	3684	Requested limit	III. B.10.
VE	Oil	8,760	20% opacity except 40% for 2 min /hr				N/A	62-296.405(1)(a) FAC	III. B.5.
VE	Gas	8,760	20% opacity except 40% for 2 min /hr				N/A	62-296.405(1)(a) FAC	III. B.5.
VE	Oil	N/A	60% opacity 3 hrs in any 24 hr period soot blowing or load change				N/A	62-210.700(3) FAC	III. B.6.
VE	Gas	N/A	60% opacity 3 hrs in any 24 hr period soot blowing or load change				N/A	62-210.700(3) FAC	III. B.6.

Notes: * The "Equivalent Emissions" listed are for informational purposes only.

N/A : Not Applicable

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Table 1.1, Summary of Air Pollutant Standards and Terms

Lakeland Electric & Water Utilities
Charles Larsen Memorial Power Plant

PROPOSED Permit No.: 1050003-004-AV
Facility ID No.: 1050003

E.U. ID No.	Brief Description
-005	Peaking Gas Turbine #3
-006	Peaking Gas Turbine #2
-007	Peaking Gas Turbine #1

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

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions		Regulatory Citation(s)	See Permit Condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
SO ₂	Oil	8,760	0.5% Sulfur by weight				485.2	EBA / AO 53-238714	III.C.6.
VE	Oil	8,760	20% opacity				N/A	62-296.320(4)(b)1 FAC	III.C.5.
VE	Gas	8,760	20% opacity				N/A	62-296.320(4)(b)1 FAC	III.C.5.
Notes: <ul style="list-style-type: none"> * The "Equivalent Emissions" listed are for informational purposes only. EBA: Established By Applicant N/A : Not Applicable 									

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

Lakeland Electric & Water Utilities
Charles Larsen Memorial Power Plant

PROPOSED Permit No.: 1050003-004-AV
Facility ID No.: 1050003

E.U. ID No. Brief Description
-008 Combined Cycle Combustion Turbine

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

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions [*]		Regulatory Citation(s)	See Permit Condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
NO _x	Gas	8,760	25 ppm @ 15% O ₂ dry basis		425.0			62-212.400(6) FAC; PSD-FL-166	III.D.4.
NO _x	Oil**		42 ppm @ 15% O ₂ dry basis		244			62-212.400(6) FAC; PSD-FL-166	III.D.5.
SO ₂	Gas	8,760	Natural gas as primary fuel		9			62-212.400(6) FAC; PSD-FL-166	III.D.6.
SO ₂	Oil**		0.20% Sulfur by weight		307			62-212.400(6) FAC; PSD-FL-166	III.D.7.
PM/PM ₁₀	Gas	8,760	0.006 lb/MMBtu		22			62-212.400(6) FAC; PSD-FL-166	III.D.8.
PM/PM ₁₀	Oil**		0.025 lb/MMBtu		22			62-212.400(6) FAC; PSD-FL-166	III.D.9.
SAM	Gas	8,760	Natural gas as primary fuel		0.8			62-212.400(6) FAC; PSD-FL-166	III.D.10.
SAM	Oil**		0.20% Sulfur by weight		9.13			62-212.400(6) FAC; PSD-FL-166	III.D.11.
VE		8,760	Not Exceed 10% opacity					EBA/AC 53-190437	III.D.12.
VOC	Gas	8,760			9			PSD-FL-166	III.D.13.
VOC	Oil**				22			PSD-FL-166	III.D.13.
CO	Gas	8,760	25 ppm @ 15% O ₂ dry basis		232			PSD-FL-166	III.D.14.
CO	Oil**				79			PSD-FL-166	III.D.14.
Hg	Oil**				0.003			PSD-FL-166	III.D.15.
Pb	Oil**				0.03			PSD-FL-166	III.D.16.
Be	Oil**				0.003			PSD-FL-166	III.D.17.

Notes: * The "Equivalent Emissions" listed are for informational purposes only.
 ** Maximum annual consumption of No. 2 fuel oil shall not exceed 1/3 of the annual capacity factor
 EBA: Established By Applicant SAM: Sulfuric Acid Mist

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Table 2-1, Summary of Compliance Requirements

Lakeland Electric & Water Utilities
Charles Larsen Memorial Power Plant

PROPOSED Permit No.: 1050003-004-AV
Facility ID No.: 1050003

E.U. ID No. **Brief Description**
-003 Fossil Fuel Fired Steam Generator #6

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

Pollutant Name or parameter	Fuel(s)	Compliance Method	Testing Time	Frequency	Min. Compliance		See Permit Condition(s)
			Frequency	Base Date *	Test Duration	CMS **	
PM	Oil	EPA Method 17, 5, 5B, or 5F	Annual	1-Jul	1 hour		III.A.18.
PM	Gas	EPA Method 17, 5, 5B, or 5F	ASP No. 97-B-01	1-Jul	1 hour		III.A.18. & 24.
SO ₂	Oil	EPA Method 6, 6A, 6B, 6C, or Sulfur Fuel Limit	Annual	1-Jul	1 hour		III.A.19.
VE	All	DEP Method 9	Annual	1-Jul	60 minutes		III.A.17. & 23.

Notes:

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

**CMS [=] continuous monitoring system

[electronic file name: 10500032.xls]

Table 2-1, Summary of Compliance Requirements

Lakeland Electric & Water Utilities
Charles Larsen Memorial Power Plant

PROPOSED Permit No.: 1050003-004-AV
Facility ID No.: 1050003

E.U. ID No. **Brief Description**
-004 Fossil Fuel Fired Steam Generator #7

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

Pollutant Name or parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS **	See Permit Condition(s)
PM	Oil	EPA Method 17, 5, 5B, or 5F	Annual	1-Jul	1 Hour		III.B.18.
PM	Gas	EPA Method 17, 5, 5B, or 5F	ASP No. 97-B-01	1-Jul	1 Hour		III.B.18. & 24.
SO ₂	Oil	EPA Method 6, 6A, 6B, 6C, or Sulfur Fuel Limit	Annual	1-Jul	1 Hour		III.B.19.
VE	All	DEP Method 9	Annual	1-Jul	60 Minutes		III.B.17. & 23.

Notes:

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

**CMS [=] continuous monitoring system

[electronic file name: 10500032.xls]

Table 2-1, Summary of Compliance Requirements

Lakeland Electric & Water Utilities
Charles Larsen Memorial Power Plant

PROPOSED Permit No.: 1050003-004-AV
Facility ID No.: 1050003

E.U. ID No.	Brief Description
-005	Peaking Gas Turbine #3
-006	Peaking Gas Turbine #2
-007	Peaking Gas Turbine #1

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

Pollutant Name or parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS **	See Permit Condition(s)
Sulfur	Oil	Fuel Sampling and Analysis	Annual	5-Mar	30 Minutes		III.C.9. & 12.
VE	All	EPA Method 9					III.C.11. & 16.

Notes:

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

**CMS [=] continuous monitoring system

[electronic file name: 10500032.xls]

Table 2-1, Summary of Compliance Requirements

Lakeland Electric & Water Utilities
Charles Larsen Memorial Power Plant

PROPOSED Permit No.: 1050003-004-AV
Facility ID No.: 1050003

E.U. ID No. Brief Description
-008 Combined Cycle Combustion Turbine

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

Pollutant Name or parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS **	See Permit Condition(s)
NO _x	All	EPA Method 20	Annual	30-Dec	1 Hour	yes	III.D.27.
PM/PM ₁₀	Oil	EPA Method 5, 5B or 17	Renewal	30-Dec	1 Hour		III.D.30.
SAM	All	Low Sulfur Fuel					III.D.31.
VE	All	EPA Method 9	Annual	30-Dec	30 Minutes		III.D.32.
Water to Fuel	All						III.D.21.
VOC	All	Compliance with CO	Initial	30-Dec			III.D.33.
CO	All	EPA Method 10	Initial	30-Dec			III.D.33.
Hg	Oil	EPA Method101 or Fuel Analysis	Initial	30-Dec			III.D.33.
Pb	Oil		Initial	30-Dec			III.D.33.
Be	Oil	EPA Method104 or Fuel Analysis	Initial	30-Dec			III.D.33.

Notes:

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

**CMS [=] continuous monitoring system

[electronic file name: 10500032.xls]

Appendix H-1, Permit History/ID Number Changes

Lakeland Electric & Water Utilities
Larsen Power Plant

PROPOSED Permit No.: 1050003-004-AV
Facility ID No.: 1050003

Permit History (for tracking purposes):

E.U.

<u>ID No.</u>	<u>Description</u>	<u>Permit No.</u>	<u>Issue Date</u>	<u>Expiration Date</u>	<u>Extended Date</u> ^{1,2}	<u>Revised Date(s)</u>
-001	Oil-Fired Steam Generator #4	AO53-175869	4/30/90	5/17/95*	10/16/96	
-002	Oil-Fired Steam Generator #5	AO53-175868	4/27/90	5/17/95**	10/16/96	
-003	Oil-Fired Steam Generator #6	AO53-175871	4/30/90	5/17/95	8/14/96	
-004	Oil-Fired Steam Generator #7	AO53-175870	4/30/90	5/17/95	8/14/96	
-005	Peaking Gas Turbine #3	AO53-238714	12/15/93	9/1/98		
-006	Peaking Gas Turbine #2	AO53-238714	12/15/93	9/1/98		
-007	Peaking Gas Turbine #1	AO53-238714	12/15/93	9/1/98		
-008	Combined Cycle Combustion Turbine	AO53-219296	9/28/93	8/1/98		2/1/96
		AC53-190437/	7/26/91	3/30/93		12/18/95
		PSD-FL-166				

* Permanent Shutdown December 31, 1994; permit surrendered October 16, 1996.

** Permanent Shutdown September 30, 1991; permit surrendered October 16, 1996.

(if applicable) ID Number Changes (for tracking purposes):

From: Facility ID No.: 40TPA530003

To: Facility ID No.: 1050003

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}

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Bill Thomas, P.E.
Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619-8218

4a. Article Number

2127 635 719

4b. Service Type

- | | |
|---|---|
| <input type="checkbox"/> Registered | <input type="checkbox"/> Insured |
| <input checked="" type="checkbox"/> Certified | <input type="checkbox"/> COD |
| <input type="checkbox"/> Express Mail | <input type="checkbox"/> Return Receipt for Merchandise |

7. Date of Delivery

7-7-97

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Sender)

James M. Pracin

PS Form 3811, December 1991

U.S. GPO: 1992-323-402

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

2 127 635 719



Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

PS Form 3800, March 1993

Sent to Mr. Bill Thomas, P.E.	
Street and No. 3804 Coconut Palm Drive	
P.O., State and ZIP Code Tampa, Florida 33619-8218	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date 07/03/97	
Facility ID#: 1050003	

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Ronald W. Tomlin
Assistant Managing Director
Lakeland Electric & Water
Utilities
501 East Lemon Street
Lakeland, Florida 33801-5079

4a. Article Number

2127 635 718

4b. Service Type

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

7/7/97

5. Signature (Addressee)

Ronald W. Tomlin

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991

U.S. GPO: 1992-323-402

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

2 127 635 718



Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to Mr. Ronald W. Tomlin	
Street and No. 501 East Lemon Street	
F.O., State and ZIP Code Lakeland, FL 33801-5079	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date 07/03/97	
Facility ID#: 1050003	

PS Form 3800, March 1993