Livingston, Sylvia

From: Trickey, Tom [Tom.Trickey@lakelandelectric.com]

Sent: Wednesday, July 21, 2010 4:25 PM

To: Livingston, Sylvia

Subject: RE: Lakeland Electric - Charles Larsen Memorial Power Plant; 1050003-016-AC/ PSD-

FL-166E

Documents received and reviewed.

Tom Trickey

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]

Sent: Tuesday, July 20, 2010 3:22 PM

To: Trickey, Tom

Cc: Shelton, Farzie; ken_kosky@golder.com; Nasca, Mara; forney.kathleen@epa.gov; abrams.heather@epa.gov;

oquendo.ana@epa.gov; Gibson, Victoria; DeVore, Christy; Koerner, Jeff; Walker, Elizabeth (AIR) **Subject:** Lakeland Electric - Charles Larsen Memorial Power Plant; 1050003-016-AC/ PSD-FL-166E

Dear Sir/ Madam:

Attached is the official **Notice of Intent to Issue** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1050003.016.AC.D pdf.zip

Owner/Company Name: LAKELAND ELECTRIC

Facility Name: CHARLES LARSEN MEMORIAL POWER PLANT

Project Number: 1050003-016-AC / PSD-FL-166E

Permit Status: DRAFT

Permit Activity: CONSTRUCTION

Facility County: POLK Processor: Christy DeVore

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "Air Permit Documents Search" website at http://www.dep.state.fl.us/air/emission/apds/default.asp.

Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation

Livingston, Sylvia

From:

Livingston, Sylvia

Sent:

Tuesday, July 20, 2010 3:22 PM

To:

'tom.trickey@lakelandelectric.com'

Cc:

'farzie.shelton@lakelandelectric.com'; 'ken kosky@golder.com';

'mara.nasca@dep.state.fl.us'; 'forney.kathleen@epa.gov'; 'abrams.heather@epa.gov'; 'oquendo.ana@epa.gov'; 'victoria.gibson@dep.state.fl.us'; 'christy.devore@dep.state.fl.us';

'jeff.koerner@dep.state.fl.us'; 'elizabeth.walker@dep.state.fl.us'

Subject:

Lakeland Electric - Charles Larsen Memorial Power Plant; 1050003-016-AC/ PSD-FL-166E

Attachments:

1050003-016-AC Intent.pdf

Dear Sir/ Madam:

Attached is the official Notice of Intent to Issue for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1050003.016.AC.D pdf.zip

Owner/Company Name: LAKELAND ELECTRIC

Facility Name: CHARLES LARSEN MEMORIAL POWER PLANT

Project Number: 1050003-016-AC / PSD-FL-166E

Permit Status: DRAFT

Permit Activity: CONSTRUCTION

Facility County: POLK Processor: Christy DeVore

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Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation

Sylvia Livingston Division of Air Resource Management (DARM) Florida Department of Environmental Protection 850/921-9561 sylvia.livingston@dep.state.fl.us

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: http://www.adobe.com/products/acrobat/readstep.html.

Memorandum

Florida Department of Environmental Protection

To:

Trina Vielhauer, Bureau of Air Regulation

Through:

Jeff Koerner, New Source Review Sect

From:

Christy DeVore, New Source Review Section

Date:

July 16, 2010

Subject:

Draft Air Permit No. 1050003-016-AC

PSD-FL-166E

Lakeland Electric, Charles Larsen Memorial Power

PSD Air Construction Permit Revision

Attached for your review is a draft PSD air construction permit revision package for the existing Charles Larsen Memorial Power Plant, which is located in Polk County at 2002 Highway 92 East in Lakeland, Florida. Briefly, the draft permit revision for Emissions Unit 8 requires annual tests for carbon monoxide and opacity only for fuels fired 400 hours or more during the federal fiscal year; demonstration of compliance with the NO_x standard (3-hour block average) by the existing continuous emissions monitoring system (CEMS) installed for the Acid Rain Program; and monitoring water-to-fuel ratio as a surrogate compliance method if the NO_x CEMS is not available. The attached Technical Evaluation and Preliminary Determination provides a detailed description of the project and the rationale for permit issuance. The project is not considered a new source review reform project. Day 90 of the permitting time clock is August 30, 2010. I recommend your approval of the attached draft permit package.

Attachments

TLV/jfk/scd

P.E. CERTIFICATION STATEMENT

PERMITTEE

Lakeland Electric 501 E. Lemon Street Lakeland, FL 33801

Draft Permit No. 1050003-016-AC/PSD-FL-166E Charles Larsen Memorial Power Plant Air Construction Permit Revision Polk County, Florida

PROJECT DESCRIPTION

The permit revises the following: annual tests for carbon monoxide and opacity are now only required for fuels fired 400 hours or more during the federal fiscal year; compliance with the NO_X standard (3-hour block average) is now demonstrated by the existing continuous emissions monitoring system (CEMS) installed for the Acid Rain Program; and monitoring water-to-fuel ratio will serve as a surrogate compliance method if the NO_X CEMS is not available.

This project is subject to the general preconstruction review requirements in Rule 62-212.300, Florida Administrative Code (F.A.C.) and is a revision of the original Prevention of Significant Deterioration (PSD) air construction permit. The Department's full review of the project and rationale for issuing the draft permit is provided in the Technical Evaluation and Preliminary Determination.

I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify any other aspects of the proposal (including, but not limited to, the electrical, civil, mechanical, structural, hydrological geological) and meteorological features).

S. Christy DeVore, P.E.

Registration Number 6311



Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary

July 19, 2010

Sent by Electronic Mail – Received Receipt Requested

Thomas J. Trickey, P.E., Plant Manager Lakeland Electric 501 E. Lemon Street Lakeland, FL 33801

Re: Draft Air Permit No. 1050003-016-AC / PSD-FL-166E

Charles Larsen Memorial Power Plant PSD Air Construction Permit Revision

Dear Mr. Trickey:

On June 1, 2010, you submitted an application for an air construction permit revision subject to the preconstruction review requirements of Rule 62-212.300, Florida Administrative Code. The project is also a revision of the original PSD air construction Permit No. 1050003-012-AC (PSD-FL-166D) for the following: annual tests for carbon monoxide and opacity are now only required for fuels fired 400 hours or more during the federal fiscal year; compliance with the NO_x standard (3-hour block average) is now demonstrated by the existing continuous emissions monitoring system (CEMS) installed for the Acid Rain Program; and monitoring water-to-fuel ratio will serve as a surrogate compliance method if the NO_x CEMS is not available. This work will be conducted at the existing Charles Larsen Memorial Power Plant, which is located in Polk County at 2002 Highway 92 East in Lakeland, Florida. Enclosed are the following documents: Written Notice of Intent to Issue Air Permit; Public Notice of Intent to Issue Air Permit; Technical Evaluation and Preliminary Determination; and Draft Permit with Appendices.

The Public Notice of Intent to Issue Air Permit is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project. If you have any questions, please contact the Project Engineer, Christy DeVore, at 850/921-8968.

Sincerely,

Trina Vielhauer, Chief

Bureau of Air Regulation

Zuin & Vielhaus

Enclosures

TLV/jfk/scd

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

In the Matter of an Application for Air Permit by:

Lakeland Electric 501 E. Lemon Street Lakeland, FL 33801

Authorized Representative: Thomas J. Trickey, P.E., Plant Manager

Draft Permit No. 1050003-016-AC PSD-FL-166E

Charles Larsen Memorial Power Plant Air Construction Permit Revision Polk County, Florida

Facility Location: Lakeland Electric operates the existing Charles Larsen Memorial Power Plant, which is located in Polk County at 2002 Highway 92 East in Lakeland, Florida.

Project: The air construction permit revision includes the following: annual tests for carbon monoxide and opacity are now only required for fuels fired 400 hours or more during the federal fiscal year; compliance with the NO_X standard (3-hour block average) is now demonstrated by the existing continuous emissions monitoring system (CEMS) installed for the Acid Rain Program; and monitoring water-to-fuel ratio will serve as a surrogate compliance method if the NO_X CEMS is not available. Details of the project are provided in the application and the enclosed Technical Evaluation and Preliminary Determination.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212, F.A.C. The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records to the under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permit (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

the address or phone number listed above. Pursuant to Rule 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit and requests for a public meeting for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 30-day period. In addition, if a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received comments result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within fourteen 14 days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.

Trina Vielhauer, Chief

Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue Air Permit package (including the Written Notice of Intent to Issue Air Permit, the Public Notice of Intent to Issue Air Permit, the Technical Evaluation and Preliminary Determination and the Draft Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on below.

Mr. Thomas J. Trickey, P.E., Lakeland Electric (tom.trickey@lakelandelectric.com)

Ms. Farzie Shelton, Lakeland Electric (farzie.shelton@lakelandelectric.com)

Mr. Ken Kosky, P.E., Golder Associates, Inc. (ken kosky@golder.com)

Ms. Mara Nasca, South District Office (mara.nasca@dep.state.fl.us)

Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)

Ms. Heather Abrams, EPA Region 4 (abrams.heather@epa.gov)

Ms. Ana M. Oquendo, EPA Region 4 (oquendo.ana@epa.gov)

Ms. Vickie Gibson, DEP BAR Reading File (victoria gibson@dep.state.fl.us)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection Division of Air Resource Management, Bureau of Air Regulation

Draft Air Permit No. 1050003-016-AC / PSD-FL-166E Lakeland Electric, Charles Larsen Memorial Power Plant Polk County, Florida

Applicant: The applicant for this project is Lakeland Electric. The applicant's authorized representative and mailing address is: Thomas J. Trickey, P.E., Plant Manager, Lakeland Electric, Charles Larsen Memorial Power Plant, 501 E. Lemon Street, Lakeland, Florida 33801.

Facility Location: Lakeland Electric operates the existing Charles Larsen Memorial Power Plant, which is located in Polk County at 2002 Highway 92 East in Lakeland, Florida.

Project: This project revises Permit No. 1050003-012-AC (PSD-FL-166D) for the following: annual tests for carbon monoxide and opacity are now only required for fuels fired 400 hours or more during the federal fiscal year; compliance with the NO_X standard (3-hr block average) is now demonstrated by the existing continuous emissions monitoring system (CEMS) installed for the Acid Rain Program; and monitoring water-to-fuel ratio will serve as a surrogate compliance method if the NO_X CEMS is not available.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212, F.A.C. The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above. In addition, electronic copies of these documents are available on the following web site by entering draft permit number: http://www.dep.state.fl.us/air/emission/apds/default.asp.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit and requests for a public meeting for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 30-day period. In addition, if a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received comments result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

Mediation: Mediation is not available in this proceeding.



TECHNICAL EVALUATION & PRELIMINARY DETERMINATION

APPLICANT

Lakeland Electric 501 E. Lemon Street Lakeland, Florida 33801

Charles Larsen Memorial Power Plant Facility ID No. 1050003

PROJECT

Project No. 1050003-016-AC (PSD-FL-166E) Application for PSD Air Construction Permit Revision

COUNTY

Polk County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection Division of Air Resource Management Bureau of Air Regulation New Source Review Section 2600 Blair Stone Road, MS#5505 Tallahassee, Florida 32399-2400

July 16, 2010

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

Facility Description and Location

The Charles Larsen Memorial Plant is an existing power plant, which is categorized under Standard Industrial Classification Code No. 4911. The existing Charles Larsen Memorial Plant is located in Polk County at 2002 Highway 92 East in Lakeland, Florida. The UTM coordinates of the existing facility are Zone 17, 408.9 km East, and 3102.5 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

On June 1, 2010 the Department received a complete application for a minor source air pollution construction permit. The applicant has requested a change in annual compliance testing requirements with no testing for each fuel fired less than 400 hours per year, change in annual compliance method for NO_X from compliance testing to compliance by CEMS, no monitoring of the water-to-fuel ratio for NO_X emissions and the removal of the CAM requirements for Emissions Unit 8, a combined cycle combustion turbine.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 5 tons per year or more of lead;
- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides (NO_X); sulfur dioxide (SO₂); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM₁₀); volatile organic compounds (VOC); lead (Pb); fluorides (F); sulfuric acid mist (SAM); hydrogen sulfide (H₂S); total reduced sulfur (TRS), including H₂S; reduced sulfur compounds, including H₂S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO₂ and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 µg/m³, 24-hour average.

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

PSD Applicability for Project

This permit revision is a revision of the original PSD air construction permit to establish the NO_X standard based on continuous emissions monitoring system (CEMS) data.

3. DEPARTMENT REVIEW

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, F.A.C.; Prevention of Significant Deterioration (PSD), Permit No. PSD-FL-166, and as amended (A through D); and, Best Available Control Technology (BACT), signed July 26, 1991.

The applicant requested the following changes to Permit No. 1050003-012-AC/PSD-FL-166D.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

- 1. <u>Applicant Request</u>: Annual compliance testing for carbon monoxide and opacity should only be required for fuels fired 400 hours or more during a federal fiscal year.
 - Department Conclusion: Per Rule 62-297.310(7)(a)3.b. the Department shall not require submission of emission compliance test results for any emissions unit that during the year prior to renewal burned liquid and/or solid fuel for a total of no more than 400 hours. There are other permits that do not require annual testing for fuels fired less than 400 hours per year. For Emissions Unit 8, in 2009 the operating hours for oil-firing was zero, in 2008 less than 19 hours per year and overall, the data for the past five years shows oil was fired much less than 400 hours per year. The permit will be revised to require annual compliance tests for opacity and CO for each fuel fired for 400 hours or more during the federal fiscal year. The permit requires a PM test only if the opacity standard is exceeded. There is no change in VOC compliance testing requirements as VOC emissions are assumed to be in compliance when compliance is met for CO emissions.
- 2. <u>Applicant Request</u>: Use the existing Acid Rain CEMS data to comply with the NO_X standard (3-hour block average) to replace monitoring the water-to-fuel ratio for NO_X emissions.
- 7. Department Conclusion: The existing permit recognizes the NO_X 3-hour block average standard. The current air construction permit requires annual testing to demonstrate NO_X compliance, however the facility's Title V permit notes that the Acid Rain CEMS data can be used to comply with the standard. Annual testing is no longer necessary with continuous compliance demonstrated by the CEMS. Compliance by NO_X CEMS is approved and replaces the requirement for the annual NO_X compliance test. CEMS requirements have been added to the permit as Appendix C in Section 4. Compliance by NO_X monitor data will allow the plant to remove the CAM plan requirement from the Title V permit. The permittee is required to conduct water-to-fuel ratio monitoring, but this data will only be used during periods of NO_X CEMS downtime as a surrogate for assuring compliance with the NO_X limit. Data shall be maintained to correlate the NO_X CEMS results to the water-to-fuel ratio monitoring results. 40 CFR 75 Appendix E quality assurance/quality compliance procedures for the water-to fuel monitors are not required for this compliance method.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Christy DeVore is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

DRAFT PERMIT REVISION

PERMITTEE

Lakeland Electric 501 E. Lemon Street Lakeland, FL 33801

Authorized Representative: Thomas J. Trickey, P.E., Plant Manager Air Permit No. 1050003-016-AC / PSD-FL-166E Charles Larsen Memorial Power Plant Existing Emissions Unit 8 Air Construction Permit Revision

PROJECT

This is the final air construction permit, which revises Permit No. 1050003-012-AC (PSD-FL-166D) for the following: annual tests for carbon monoxide and opacity are now only required for fuels fired 400 hours or more during the federal fiscal year; compliance with the NO_X standard (3-hour block average) is now demonstrated by the existing continuous emissions monitoring system (CEMS) installed for the Acid Rain Program; and monitoring water-to-fuel ratio will serve as a surrogate compliance method if the NO_X CEMS is not available. The Charles Larsen Memorial Plant is a power plant categorized under Standard Industrial Classification No. 4911. The existing facility is located in Polk County at 2002 Highway 92 East in Lakeland, Florida. The UTM coordinates are Zone 17, 408.9 km East, and 3102.5 km North.

This final permit is organized into the following sections: Section 1 (General Information), Section 2 (Permit Revisions) and adds new Appendix C to Section 4. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is a revision of the original PSD air construction permit. A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

(DRAFT)	
Joseph Kahn, Director	(Date)
Division of Air Resource Management	

CERTIFICATE OF SERVICE

SECTION 1. GENERAL INFORMATION (DRAFT)

FACILITY DESCRIPTION

The existing facility is a power plant, which consists of the following emissions units and activities: one fossil fuel-fired steam generator (EU 007), two simple cycle combustion turbine (CT) peaking units (EUs 002 and 003), one simple and combined cycle CT (EU 008), some fuel oil storage tanks and associated equipment.

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

PROPOSED PROJECT

This project revises the following compliance methods in Air Permit No. 1050003-012-AC, PSD-FL-166D for existing Emissions Unit 8: annual tests for carbon monoxide and opacity are now only required for fuels fired 400 hours or more during the federal fiscal year; compliance with the NO_X standard (3-hour block average) is now demonstrated by the existing continuous emissions monitoring system (CEMS) installed for the Acid Rain Program; and monitoring water-to-fuel ratio will serve as a surrogate compliance method if the NO_X CEMS is not available

SECTION 2. PERMIT REVISIONS (DRAFT)

The following permit conditions are revised as indicated. Strikethrough is used to denote the deletion of text. Double-underlines are used to denote the addition of text. All changes are emphasized with yellow highlight.

Permit Being Modified: Permit No. 1050003-012-AC (PSD-FL-166D)

Affected Emissions Units: EU-008

Subsection 3A, Specific Conditions 7, 8 and 9: These conditions are revised as follows.

- 7. Nitrogen Oxides (NO_X): NO_X emissions shall may be determined by conducting EPA Reference Method 7 or 7E, "Determination of Nitrogen Oxides Emissions from Stationary Sources." The permittee shall install, calibrate, operate and maintain a NO_X CEMS to demonstrate continuous compliance with the NO_X limits in Specific Condition 5. The Acid Rain CEMS may be used for this purpose. The averaging time shall be 3. hour block averages. Data shall be maintained to correlate the NO_X CEMS results to the water-to-fuel ratio monitoring results. During periods of monitor downtime of the NO_X CEMS, the water-to-fuel ratio monitors shall serve as a surrogate for assuring compliance with the NO_X limits. The procedures in 40 CFR 75 Appendix E for the water-to fuel monitors are not required for this compliance method.
- 8. Particulate Matter/Opacity: The stack opacity shall be determined by conducting EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources." This test shall serve as a surrogate for particulate matter compliance testing. If 10% opacity is exceeded, the Department may require the permittee to determine particulate matter emissions by conducting EPA Reference Methods 5, 5B or 17, "Determination of Particulate Matter emissions from Stationary Sources." Annual compliance testing for opacity shall be performed for each fuel fired for 400 hours or more during the federal fiscal year. [Rule 62-297.310(7), F.A.C.]
- 9. Carbon Monoxide (CO): CO emissions shall be determined by conducting EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources." Annual compliance testing shall be performed for each fuel fired for 400 hours or more during the federal fiscal year. [Rule 62-297.310(7)] F.A.C.

Subsection 3A, Specific Condition 15: The following new condition is added.

Title V Source: A Title V source may immediately implement such changes after they have been incorporated into the terms and conditions of a new or revised construction permit issued pursuant to Chapter 62-212, F.A.C., and after the source provides to EPA, the Department, each affected state and any approved local air program having geographic jurisdiction over the source, a copy of the source's application for operation permit revision. The Title V source may conform its application for construction permit to include all information required by Rule 62-213.420, F.A.C., in lieu of submitting separate application forms. [Rule 62-213.412(2), F.A.C.]

SECTION 4. APPENDIX C.

Continuous Emission Monitoring System Requirements

PERFORMANCE SPECIFICATIONS AND QUALITY ASSURANCE

- 1. <u>Span Values and Dual Range Monitors</u>: The owner or operator shall set appropriate span values for the CEMS. The owner or operator shall install dual range monitors if required to demonstrate compliance with the CEMS.
- 2. <u>Continuous Flow Monitor</u>: For compliance with mass emission rate standards, the owner or operator shall install a continuous flow monitor to determine the stack exhaust flow rate. The flow monitor shall be certified pursuant to 40 CFR part 60, Appendix B, Performance Specification 6, or similar requirements in 40 CFR 75. Alternatively, the owner or operator may install a fuel flow monitor and use an appropriate F-Factor computational approach to calculate stack exhaust flow rate.
- 3. <u>Diluent Monitor</u>: If it is necessary to correct the CEMS output to the oxygen concentrations specified in this permit's emission standards, the owner or operator shall either install an oxygen monitor or install a CO₂ monitor and use an appropriate F-Factor computational approach.
- 4. <u>Moisture Correction</u>: If necessary, the owner or operator shall determine the moisture content of the exhaust gas and develop an algorithm to enable correction of the monitoring results to a dry basis (0% moisture).
- 5. <u>Performance Specifications</u>: The owner or operator shall evaluate the acceptability of the NO_X CEMS by conducting Performance Specification 2 of 40 CFR part 60, Appendix B, or similar requirements in 40 CFR 75.
- 6. Quality Assurance: The owner or operator shall follow the quality assurance procedures of 40 CFR part 60, Appendix F, or similar requirements in 40 CFR 75. The required RATA tests shall be performed using EPA Method 7E in Appendix A of 40 CFR part 60. NO_X shall be expressed "as NO₂."
- 7. RATA Tests for Compliance: Data collected during CEMS quality assurance RATA tests shall also be reported in terms of "lb/hour" to demonstrate annual compliance with the corresponding mass-based NO_X standards.

CALCULATION APPROACH

- 8. CEMS Data: Each CEMS shall monitor and record emissions during all periods of operation and whenever emissions are being generated, including during episodes of startups, shutdowns, and malfunctions. All data shall be used, except for invalid measurements taken during monitor system breakdowns, repairs, calibration checks, zero adjustments and span adjustments, and except for allowable data exclusions as per this appendix.
- 9. Operating Hours and Operating Days: For purposes of this appendix, the following definitions shall apply. An hour is the 60-minute period beginning at the top of each hour. Any hour during which an emissions unit is in operation for more than 15 minutes is an operating hour for that emission unit. A day is the 24-hour period from midnight to midnight. Any day with at least one operating hour for an emissions unit is an operating day for that emission unit.
- 10. <u>Valid Hourly Averages</u>: Each CEMS shall be designed and operated to sample, analyze and record data evenly spaced over the hour at a minimum of one measurement per minute. All valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour.
 - a. Hours that are not operating hours are not valid hours.
 - b. For each operating hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, there is insufficient data, the 1-hour block average is not valid, and the hour is considered as "monitor unavailable."
- 11. <u>Block 3-hour average</u>: Compliance shall be determined for each block averaging period by calculating the arithmetic average of all valid hourly averages occurring within that block averaging period. (Hours 0, 1 and 2 are the first 3-hour block; hours 3, 4 and 5 are the second 3-hour block; etc.)

SECTION 4. APPENDIX C.

Continuous Emission Monitoring System Requirements

MONITOR AVAILABILITY

12. Monitor Availability: The quarterly excess emissions report shall identify monitor availability for each quarter in which the unit operated. Monitor availability for the CEMS shall be 95% or greater in any calendar quarter in which the unit operated for more than 760 hours. In the event the applicable availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving the required availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit.

EXCESS EMISSIONS

13. Definitions:

- a. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
- b. Shutdown means the cessation of the operation of an emissions unit for any purpose.
- c. *Malfunction* means any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.
- 14. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
- 15. <u>Data Exclusion Procedures for SIP Compliance</u>: As per the procedures in this condition, limited amounts of CEMS emissions data may be excluded from the corresponding compliance demonstration, provided that best operational practices to minimize emissions are adhered to and the duration of data excluded is minimized. The data exclusion procedures of this condition apply only to SIP-based emission limits.
 - a. Excess Emissions. Data in excess of the applicable emission standard may be excluded from compliance calculations if the data are collected during periods of permitted excess emissions (during startup, shutdown or malfunction). The maximum duration of excluded data is 2 hours in any 24-hour period.
 - b. Limited Data Exclusion. If the compliance calculation using all valid CEMS emission data, as defined in this appendix, indicates that the emission unit is in compliance, then no CEMS data shall be excluded from the compliance demonstration.
 - c. Event Driven Exclusion. The underlying event (for example, the startup, shutdown or malfunction event) must precede the data exclusion. If there is no underlying event, then no data may be excluded. Only data collected during the event may be excluded.
 - d. Reporting Excluded Data. The data exclusion procedures of this condition are not necessarily the same procedures used for excess emissions as defined by federal rules. Quarterly reports required by this permit shall indicate not only the duration of data excluded from SIP compliance calculations but also the number of excess emissions as defined by federal rules.
- 16. Notification Requirements: The owner or operator shall notify the Compliance Authority within one working day of discovering any emissions that demonstrate noncompliance for a given averaging period. Within one working day of occurrence, the owner or operator shall notify the Compliance Authority of any malfunction resulting in the exclusion of CEMS data.

SECTION 4. APPENDIX C.

Continuous Emission Monitoring System Requirements

ANNUAL EMISSIONS

- 17. <u>CEMS Used for Calculating Annual Emissions</u>: All valid data shall be used when calculating annual emissions.
 - a. Annual emissions shall include data collected during startup, shutdown and malfunction periods.
 - b. Annual emissions shall include data collected during periods when the emission unit is not operating but emissions are being generated (for example, when firing fuel to warm up a process for some period of time prior to the emission unit's startup).
 - c. Annual emissions shall not include data from periods of time where the monitor was functioning properly but was unable to collect data while conducting a mandated quality assurance/quality control activity such as calibration error tests, RATA, calibration gas audit or RAA. These periods of time shall be considered missing data for purposes of calculating annual emissions.
 - d. Annual emissions shall not include data from periods of time when emissions are in excess of the calibrated span of the CEMS. These periods of time shall be considered missing data for purposes of calculating annual emissions.
- 18. Accounting for Missing Data: All valid measurements collected during each hour shall be used to calculate a 1-hour block average. For each hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, the owner or operator shall account for emissions during that hour using site-specific data to generate a reasonable estimate of the 1-hour block average.
- 19. <u>Emissions Calculation</u>: Hourly emissions shall be calculated for each hour as the product of the 1-hour block average and the duration of pollutant emissions during that hour. Annual emissions shall be calculated as the sum of all hourly emissions occurring during the year.