



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

September 5, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Farzie Shelton, Ch.E.  
Environmental Coordinator  
City of Lakeland  
Department of Water and Electric Utilities  
501 East Lemon Street  
Lakeland, Florida 33801-5050

Dear Ms. Shelton:

Re: Amendment of PSD-FL-008A  
City of Lakeland, C.D. McIntosh Unit No. 3

Attached is one copy of the Amendment of the Conditions of Approval related to sulfur dioxide emissions in the subject Final Determination (dated December 27, 1978) pursuant to 40CFR 52.21 - Prevention of Significant Deterioration (PSD Permit). Accompanying the Amendment is our Final Determination based on comments received following the Public Notice of August 2, 1995.

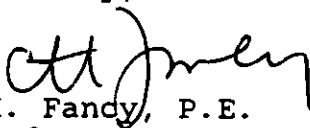
We agree that changing the Nitrogen Oxide (NO<sub>x</sub>) emission limitation from 0.7 pounds per million Btu heat input (lb/10<sup>6</sup> Btu) averaged over 3 hours to 0.6 lb/10<sup>6</sup> Btu averaged over 30 days probably would have represented a relaxation of the present condition and would have contravened NSPS Subpart D requirements. We concur that adding a second NO<sub>x</sub> limitation would result in additional but unnecessary documentation. In our opinion, the issue will be adequately addressed by the future development by EPA of NO<sub>x</sub> limits applicable to Group 2 dry bottom wall-fired Units pursuant to Title IV, "Acid Rain" of the 1990 Clean Air Act Amendments. Accordingly, Condition 4.A. will remain per the Final Determination referenced above.

The changes in the PSD permit do not conflict with the maximum sulfur dioxide air emissions limits given in Section 3.7.1 of the State of Florida Conditions of Certification (PA 74-06) applicable to Unit No. 3. However we will update the Certification shortly to reflect the sulfur dioxide reduction requirements as well as the correct particulate emission limits from the PSD Permit.

Ms. Farzie Shelton  
September 5, 1995  
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If you have any questions please call me or Mr. A. A. Linero,  
P.E., at (904)488-1344.

Sincerely,

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

CHF/aal/1

Enclosure

cc: B. Thomas, SWD  
J. Harper, EPA  
J. Bunyak, NPS  
R. Harwood, PCESD  
K. Kosky, KBN  
H. Oven, DEP  
A. Morrison, HGSS

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 Complete items 3 and 4.  
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 1.  Addressee's Address  
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 Consult postmaster for fee.

3. Article Addressed to:  
 Garzie Shelton  
 City of Lakeland  
 Dept of Water & Electric  
 501 E. Lemon St.  
 Lakeland, FL 33801-5050

4a. Article Number: **Z 392 979 037**

4b. Service Type:  
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 Express Mail  Return Receipt for Merchandise

5. Signature (Addressee): *[Signature]*

6. Signature (Agent): *[Signature]*

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PS Form 3811, December 1991 U.S. GPO: 1993-352-714

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PS Form 3800, March 1993

Service	<i>Garzie Shelton</i>
Street and No.	<i>City of Lakeland</i>
City, State and ZIP Code	<i>Lakeland - FL</i>
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	<i>PSD-FL-008 9-5-95</i>
	<i>Mailbox Unit # 3</i>



# Department of Environmental Protection

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September 5, 1995

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Ms. Farzie Shelton, Ch.E.  
Environmental Coordinator  
City of Lakeland  
Department of Water and Electric Utilities  
501 East Lemon Street  
Lakeland, Florida 33801-5050

Dear Ms. Shelton:

Re: Amendment of PSD-FL-008A Final Determination  
City of Lakeland, C.D. McIntosh Unit No. 3

The Department hereby amends the Conditions of Approval related to sulfur dioxide (SO<sub>2</sub>) emissions in the subject Final Determination (dated December 27, 1978) pursuant to 40 CFR 52.21 - Prevention of Significant Deterioration (PSD Permit). The PSD Permit is amended as follows:

◦  
Condition 2.B.

From:

A flue gas desulfurization system will be installed to treat all exhaust gases and will operate at a minimum SO<sub>2</sub> removal efficiency of 85 percent whenever coal is burned.

To:

A flue gas desulfurization system will be installed to treat exhaust gases and will operate such that whenever coal is burned, sulfur dioxide in gases discharged to the atmosphere from the boiler shall not exceed 1.2 pounds per million Btu heat input and 10 percent of the potential combustion concentration (90 percent reduction), or 35 percent of the potential combustion concentration (65 percent reduction), when emissions are less than 0.75 pounds per million Btu heat input. Compliance with the sulfur dioxide emission limitation and percent reduction requirement shall be determined on a 30-day rolling average.

Ms. Farzie Shelton  
September 5, 1995  
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Condition 6. Continuous Monitoring Requirements

From:

Continuous monitors shall be installed and operated in accordance with 40 CFR 60.45 and 60.13. In addition, a continuous SO<sub>2</sub> monitor shall be installed prior to the flue gas desulfurization system for the purposes of calculating SO<sub>2</sub> removal efficiencies.

To:

Continuous monitors shall be installed and operated in accordance with 40 CFR 60.45 and 60.13. In addition, an ASTM- certified automatic coal sampler shall be installed which produces a representative daily sample for analysis of sulfur, moisture, heating value and ash. The coal analysis data shall be used in conjunction with emission factors and the continuous monitoring data to calculate SO<sub>2</sub> reduction.

A copy of this amendment letter shall be attached to and shall become a part of Permit PSD-FL-008.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

  
Virginia B. Wetherell, Secretary

Ms. Farzie Shelton  
September 5, 1995  
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CERTIFICATE OF SERVICE

This is to certify that this PERMIT AMENDMENT and all copies were mailed to the listed persons before the close of business on September 5, 1995.

**FILING AND ACKNOWLEDGEMENT**

FILED, on this date, pursuant to Chapter 120.52(9), Florida Statutes, with the designated Deputy Clerk, receipt of which is hereby acknowledged.

K. Kosky                      9-5-95  
Clerk                                      Date

cc: B. Thomas, SWD  
R. Harwood, PCESD  
J. Harper, EPA  
J. Bunyak, NPS  
H. Oven, PPS  
K. Kosky, KBN  
A. Morrison, HGSS

Final Determination

City of Lakeland  
Department of Water and Electric Utilities  
C. D. McIntosh Power Plant Unit No. 3  
Lakeland, Florida  
Polk County

Electric Utility Steam Generating Unit  
Coal/Municipal Refuse/Oil - Fired Boiler  
364 MW

Permit No. PSD-FL-008A

Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation

September 5, 1995

### Final Determination

On July 11, 1995 a proposed Permit Amendment, Intent to Issue, Public Notice of Intent to Issue, and Technical Evaluation and Preliminary Determination applicable to the existing C. D. McIntosh Power Plant Unit No. 3 were sent to The City of Lakeland, EPA Region IV, the Southwest Florida DEP District, Polk County, and the National Park Service. The Permit Amendment was to change sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) removal requirements and limitations.

The Public Notice was published by the City of Lakeland on August 2, 1995 in the The Ledger, a newspaper of general circulation in Polk County, Florida.

A communication was received from EPA based on a draft package submitted to them for prior review. They indicated no adverse comments at the time. No comments were received during the 30-day review and comment period except from the City of Lakeland by letter dated July 25, 1995.

The City contends that a change in their present NO<sub>x</sub> emission limit from 0.7 pounds per million Btu heat input (lb/10<sup>6</sup> Btu) on a 3-hour basis to 0.6 lb/10<sup>6</sup> on a 30-day basis would constitute a relaxation of the existing limit and contravene the applicable NSPS Subpart D. Furthermore, the City contends that if the second limit were made an additional requirement, it would result in additional but unnecessary documentation.

The Department has determined that the long-term mean of NO<sub>x</sub> emissions will probably be lower with the existing limit than the proposed one. Additionally, the issue will be adequately addressed by the future development by EPA of NO<sub>x</sub> limits applicable to Group 2 dry bottom wall-fired unit pursuant to Title IV, "Acid Rain" of the 1990 Clean Air Act Amendments.

Accordingly, the Technical Evaluation and Preliminary Determination dated July 11, 1995 is incorporated into this Final Determination with the exception of the portions related to NO<sub>x</sub> emission limits.

The Final Determination of the Department is to amend PSD Permit No. PSD-FL-008 as described in the public information package with the exception of the amendment of the NO<sub>x</sub> emission limit indicated above.



Florida Department of  
**Environmental Protection**

Memorandum

TO: Virginia Wetherell  
THROUGH: Kirby Green  
FROM: Howard Rhodes *HR*  
DATE: September 1, 1995  
SUBJECT: City of Lakeland - C. D. McIntosh Unit No. 3

Attached for your signature is an amendment to the City of Lakeland's PSD Permit applicable to Unit No. 3 at the C. D. McIntosh Power Plant.

The amendment amends the original 1978 EPA-issued PSD permit to account for the fact that EPA determined in 1979 that a particular set of New Source Performance Standards (NSPS) did not apply to this unit. The NSPS formed the basis for sulfur dioxide emission limits contained in the original PSD permit.

The City requested earlier this year that conditions requiring specific sulfur dioxide removal efficiencies be removed as long as the unit met the maximum emission limit of 1.2 pounds per million Btu heat input. We negotiated an agreement that requires them to reduce potential sulfur dioxide emissions to between 65 and 90 percent. The result is that under most operating scenarios their emissions will be 0.75 pounds per million Btu or less.

Unit No. 3 is equipped with an electrostatic precipitator for particulate control and a limestone scrubber for sulfur dioxide control.

We are now working with the City to evaluate a proposal to burn petroleum coke in the same unit.

I recommend your approval of the attached amendment.

HLR/aal/1

Attachments