

TAMPA ELECTRIC

August 14, 2001

Mr. Clair Fancy Florida Department of Environmental Protection 111 South Magnolia Drive, Suite 4 Tallahassee, Florida 32301 Via Facsimile and FedEx Airbill No. 7909 5035 3811

Re:

Tampa Electric Company (TEC)

Polk Power Station

Title V Permit Modification DEP File No. 1050233-009-AV

RE

AUG 10 2001

BUREAU OF AIR REGULATION

Dear Mr. Fancy:

Please find enclosed the original Affidavit of Publication from the Lakeland Ledger, as required by 62-110.106(5), F.A.C. This public notice was published in the legal section on Tuesday, August 7, 2001. If you have any questions, please feel free to telephone Shannon Todd or me at (813) 641-5125.

Sincerely,

Laura R. Crouch

Manager-Air Programs

Laura R. Circh

Environmental Affairs

EP\gm\SKT271

Enclosure

c:

Mr. Tom Davis - ECT

Mr. Gregg Worley – EPA

Mr. Buck Oven, FDEP

Mr. Scott Sheplak, FDEP

Mr. Ed Svec, FDEP

Mr. Jerry Kissel - FDEP SW

Mr. John Bunyak - NPS

REC.: AFFIDAVIT OF PUBLICATION

AUG 15 2001

THE LEDGER

Lakeland, Polk County, Florida

BUREAU OF AIR REGULATION

Case No
STATE OF FLORIDA) COUNTY OF POLK)
Before the undersigned authority personally appeared Ken Holtzinger, who on oath says that he is the Classified Manager of The Ledger, a daily newspaper published at Lakeland in Polk County, Florida; that the attached copy of advertisement, being a
Public Notice of Intent
Revision No. 1050233-009-AV in the matter of
in the
Court, was published in said newspaper in the issues of
Affiant further says that said The Ledger is a newspaper published at Lakeland, in said Polk County, Florida, and that the said newspaper has heretofore been continuously published in said Polk County, Florida, daily, and has been entered as second class matter at the post office in Lakeland, in said Polk County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.
Signed Ken Holtzinger Classified Manager Who is personally known to me. Sworn to and subscribed before me this.
day of Clughts to A.D. 20. A.D. 20. A.D. 20. Notary Public
PATRICIA ANN ROUSE
(Seal) PATRICIA ANN ROUSE MY COMMISSION # CC 976018 EXPIRES: October 17, 2004 Bonded Thru Notary Public Underwriters
My Commission Expires

Attach Notice Here

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Title V Permit Revision No.: 1050233-009-AV Polk Power Station Polk County

dance with the conditions of the DRAFT Title V Permit Revision unless a ersponse received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed DRAFT Title V Permit Revision Issuance action for a period of 30 (thirty) days from the date of publication of this Natice, Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments field shall be made available for public inspection. It written comments received result in a significant change in this DRAFT Title V Permit Revision, the permitting authority shall issue a Revised DRAFT Title V Permit Revision, and require, if applicable, another Public Notice.

The permitting authority will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120 509 and 120.57, F.S. mediation under Section 120 573, F.S., will not be available for this proposed action.

A person whose substantial interests are affected by the proposed permitting decision (revision) 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 (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Strahon #35, Tallahassee, Florida 32399-3000 (elephone: 850/488-9730; Fax: 850/487-4938). Petitions must be filed within 14 (fourteen) days of receipt of the notice of intent, whichever occurs first. A petitionary for publication of the public notice or within 14 (fourteen) days of publication of the public notice or writhin 14 (fourteen) days of publication of the petition to the oppicant at the address indicated above, at the time of filing. The failure of any person to file a petition within th

(e) A statement of the permitting authority's action or proreversal or modification of the permitting authority's action or proposed action:

(1) A statement identifying the rules or statutes that the petitioner
contends require reversal or modification of the permitting authority's action or proposed action: and,
(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to
take with respect to the action or proposed action addressed in this
notice of intent.

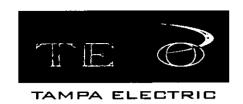
Because the administrative hearing process is designed to formulate final agency action, the filting of a petition means that the permitting authority's final action may be different from the position
food by it in this notice of intent. Persons whose substantial interests
will be affected by any such 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.

to the proceeding, in accordance with the requirements set forth above. In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit revision. Any petition shall be based only on objections to the permit revision that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213. F.A.C. Petitions filed with the Administrator of the EPA at 401 M. Street, SW. Washington, D.C. 20460.

A complete project file is available for public inspection during normal business hours. 8:00 a.m. to 5:00 p.m., Monday through Finday, except legal holidays, at:

Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Sulte 4
Tallohasses, Florida 32301
Telephone: 850/488-1344
Fax: 850/922-6979

. F653 - 8-7: 2001



July 16, 2001



Mr. Scott Sheplak, P.E.
Division of Air Resources Management
Florida Department of Environmental Protection
2600 Blair Stone Road, MS # 5505
Tallahassee, Florida 32399-2400

Via FedEx Airbill No. 7926 7690 0110

Re: Tampa Electric Company – Polk Power Station Title V Permit No. 1050233-001-AV

Request for Parallel Processing

Dear Mr. Sheplak:

Tampa Electric Company (TEC) would like to take this opportunity to request that the Polk Power Station Title V permit modifications addressing the discontinuing of Unit 1 opacity monitoring and the use of CEMs as an alternative method of fuel bound nitrogen sampling be processed simultaneously.

Please contact Shannon Todd at (813) 641-5125 if there are any questions regarding this matter.

Sincerely,

Mark Hornick

General Manager/ Responsible Official

mark Hornich

Polk Power Station

EA\gm\SKT268

c: A.Linero, FDEP

J. Kissel, FDEP

E. Svec, FDEP



May 24, 2001

RECEIVED

MAY 25 2001

BUREAU OF AIR REGULATION

Mr. Scott Sheplak, P.E. Division of Air Resources Management Florida Department of Environmental Protection 2600 Blair Stone Road, MS # 5505 Tallahassee, Florida 32399-2400 Via FedEx Airbill No. 8132 1667 4049

Re: Tampa Electric Company - Polk Power Station

Title V Permit No. 1050233-001-AV

Permit Modification Hojed 10,: 1050233-009-AV

Dear Mr. Sheplak:

On May 16, 2001, Tampa Electric Company (TEC) received a letter from the U.S. EPA Clean Air Markets Division (copy enclosed) granting TEC's petition for exemption from the opacity monitoring requirements of Part 75 for Polk Unit 1. This removes the only regulatory requirement to install, maintain and report data from a continuous opacity monitor system for this unit. Based on the fact that the continuous opacity monitor is no longer required, TEC requests that Condition III.A.52 in the above referenced Title V permit, which indicates the use of the continuous opacity monitor for purposes of periodic monitoring, be removed.

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Please contact Jamie Hunter at (813) 641-5033 if there are any questions regarding this matter.

Sincerely,

Mark Hornick

General Manager/ Responsible Official

mark Hornick

Polk Power Station

EP\gm\JJH954

Enclosure



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

MAY ~ 9 2001

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OFFICE OF AIR AND RADIATION

Gregory M. Nelson Designated Representative Tampa Electric Company P.O. Box 111 Tampa, FL 33601-0111



Re:

Petition for Exemption From the Opacity Monitoring Requirements of Part 75 for Polk Unit **1

Dear Mr. Nelson:

EPA has reviewed your February 19, 2001 petition under §75.66(a) of the Acid Rain regulations, in which Tampa Electric Company (TECO) requested an exemption from the opacity monitoring requirements of Part 75 for Unit **1 at the Polk Power Station (Polk). EPA hereby grants your petition, for the reasons stated below.

Background

Polk Unit **1 includes a coal gasifier and a combined-cycle combustion turbine, fired primarily on coal-derived gaseous fuel, with diesel fuel oil as a backup fuel. According to the February 19, 2001 petition, the unit is coal-fired. Section 75.14(a) requires the owner or operator of an affected coal-fired unit to install and operate a continuous opacity monitoring system. TECO has installed and operated an opacity monitoring system on Polk Unit **1 to satisfy this requirement.

In the February 19, 2001 petition, TECO requested an exemption from Part 75 opacity monitoring requirements for several reasons. First, the opacity levels from Unit **1 are typically in the range seen for units burning natural gas and diesel fuel, seldom exceeding 5% opacity. A full year of opacity data for the year 2000 and the results from six Method 9 visual emission reports from 1997-2000 were submitted for Unit **1 with the petition to document this. Second, twisting of the mounting brackets for the opacity monitor at the stack due to temperature effects has required frequent realignment of the monitor. Such realignment, which was performed six times in 2000, can only be done with the unit off-line. Third, an opacity

monitoring exemption for Unit **1 would appear to be consistent with the intent of §§75.14 (c) and (d), which provide opacity monitoring exemptions for gas-fired or diesel-fired units.

EPA's Determination

EPA agrees that Polk Unit **1 should be exempt from the continuous opacity monitoring requirements of Part 75. As discussed below, the unit should be treated like a "diesel-fired" unit for purposes of opacity monitoring and granted an exemption from Part 75 opacity monitoring requirements.

Before discussing why the unit should be exempt from opacity monitoring, it is helpful to summarize the regulatory history of the opacity monitoring exemptions in Part 75. Sections 75.14(c) and (d), promulgated in 1993, provide that gas-fired units and diesel-fired units respectively are exempt from Part 75 opacity monitoring requirements. At the time that these exemptions were promulgated, "gas-fired unit" was defined as a unit combusting only "natural gas", "gaseous fuels containing no more sulfur than natural gas,", or "fuel oil." 58 FR 3590, 3655 (January 11,1993). Natural gas or coal-derived gaseous fuel had to account for at least 90% of the average annual heat input during the previous three years and at least 85% during each of these individual years. EPA explained that the exemptions from the opacity monitoring requirements were for "units that do not have significant opacity levels and for units that may not be able to provide meaningful opacity information." 58 FR 3645. In particular, gas-fired units were exempt because they have "very low opacity levels, and extremely few of them...are required to monitory opacity under other federal, State, or local regulations." Id. Similarly, the basis for exempting diesel-fired units was that States do not require opacity monitoring of diesel-fired units "because of low opacity levels (e.g., below 10 percent opacity, even during startup)." Id.

After 1993, EPA revised Part 75 several times in ways relevant to opacity monitoring exemptions. In 1995 EPA defined "natural gas" as including no more than 20 grains of sulfur per 100 scf and "diesel-fired unit" as a unit burning only diesel fuel and a supplementary fuel (if any) "limited to natural gas or gaseous fuels containing no more sulfur than natural gas." 60 FR 26510, 26514 (May 17,1995). In 1999 EPA revised the definition of "natural gas" as including less than 2 grains per 100 scf and added a definition for "very low sulfur fuel. 64 FR 28564, 28587-88 (May 26,1999). "Very low sulfur fuel" includes natural gas or "[a]ny gaseous fuel with a total sulfur content no greater than 20 grains of sulfur per 100 standard cubic feet." 40 CFR 72.2 (definition of "very low sulfur fuel"). EPA stated that it was replacing the phrase in Part 75 "fuel containing no more sulfur than natural gas" with the new term "very low sulfur fuel." Response to Comments Document, Part 75 Rule Revisions (Docket A-97-35) at 84-85 (April 1, 1999). Despite this stated intention, EPA did not actually make this change in the "diesel-fired unit" definition, which continues to require that the gas burned at the unit contain no more sulfur than natural gas," which is now limited to less than 2 grains per 100 scf. 40 CFR 72.2 (definition of "diesel-fired unit").

Applying the above-described definitions of "gas-fired unit" and "diesel-fired unit" in §72.2, Polk Unit **1 does not consistently qualify as a "gas-fired unit" since, among other

things, TECO states that it may burn in the boiler in some years more diesel fuel and less coalderived gas and may not meet the requirement that gas comprise 90% of annual heat input. Moreover, the unit also does not meet the definition of "diesel-fired unit" since, among other things, the coal-derived gas burned in the boiler has more than 2 grains of sulfur per 100 scf. However, as discussed below, the coal-derived fuel qualifies as "very low sulfur fuel", and EPA concludes that the unit should be treated like a "diesel-fired unit" and should be granted an exemption from opacity monitoring.

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EPA determined that the coal-derived gaseous fuel combusted in the unit qualifies as "very low sulfur fuel," based on the unit's hourly sulfur dioxide (SO₂) mass emission and heat input data reported under Part 75 for 2000 and information supplied by TECO on the gross calorific value (GCV) of the fuel. For each hour in 2000 in which the coal-derived fuel was combusted, the sulfur content of the fuel (in grains per 100 standard cubic foot) was calculated from the SO₂ mass emission rate (in lb/hr, as reported in EDR record type 310), the heat input rate (in mmBtu, as reported in record type 300), and the GCV of the fuel (i.e., 250 Btu per standard cubic foot) using the following equation:

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Fuel Sulfur = SO_2 Mass Rate ÷ (2 lb SO_2/lb S) + Heat Input ÷ (10^6 Btu/mmBtu) x GCV x (7000 gr S/lb S) x 100.

Content (in lb SO_2/hr) (in mmBtu/hr) (in Btu/scf)

(in gr S/

100scf)
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The results of EPA's data analysis were that, for the 7,440 hours of data reported in 2000, the average sulfur content of the coal-derived gaseous fuel was 12.5 grains per 100 standard cubic feet (gr/100 scf), with the standard deviation of 5.9 gr/100 scf. As noted above, "very low sulfur fuel" includes, among other things, any gaseous fuel with a total sulfur content no greater than 20 grains of sulfur per 100 standard cubic feet. The data analysis shows that the average sulfur content of the coal-derived gaseous fuel combusted in Unit **1 is below the 20-grain level and that, considering that the average plus one standard deviation is also below the 20-grain level, that about 90% of that fuel at the unit meets the 20-grain criterion. EPA therefore finds that the fuel qualifies as "very low sulfur fuel" and that, considering only the fuels combusted in Unit **1's boiler, the unit would qualify as a "diesel-fired unit," but for EPA's unintended failure to reference "very low sulfur fuel" in the definition of "diesel-fired unit."

Moreover, as a result of Unit **1's gasification of coal and the combustion of the resulting gaseous fuel in the boiler along with some diesel fuel, the unit appears to have opacity levels that are similar to those for units burning only natural gas and diesel fuel. In particular, Method 9 compliance tests for opacity consistently show opacity of 0% for Unit **1. Further, the unit's continuous opacity monitor data show consistent average daily opacity levels of 10% or less, except for a few opacity data spikes that appear to be the result of misalignment of the

opacity monitor due to twisting of the monitor mounting brackets. See TECO's May 6, 2001 supplemental information.

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For these reasons, EPA concludes that Unit **1 should be treated as a "diesel-fired unit" for purposes of applying opacity monitoring requirements under 75.14(d) and approves an exemption from Part 75 opacity monitoring requirements. EPA notes that the Florida Department of Environment Protection has been informed of EPA's approach in this case and concurs with the approval of the exemption.

EPA's determination in this letter relies on the accuracy and completeness of the information submitted by TECO, including the information in the February 19 and May 6, 2001 submissions, and is appealable under Part 78. If you have any questions about the findings and conclusions presented above, please contact Kim Nguyen of my staff, at (202) 564-9102. Thank you for your continued cooperation.

Sincerely,

Brian J. McLearl, Director Clean Air Markets Division

cc: David McNeal, EPA Region 4
Lynn Haynes, EPA Region 4
Joseph Kahn, Florida Department of

Joseph Kahn, Florida Department of Environment Protection

Kim Nguyen, EPA Clean Air Markets Division