

Lawton Chiles
Governor



James T. Howell, M.D., M.P.H.
Secretary

September 17, 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

WARNING NOTICE
AP -46- 97

RECEIVED

SEP 19 1997

BUREAU OF
AIR REGULATION

Carlos Rionda
Authorized Representative
Osceola Power Limited Partnership
P.O. Box 606
Pahokee, Florida 33476

Re: *Opacity Excess Emissions, Osceola Cogeneration Facility.*

Dear Mr. Rionda:

The Palm Beach County Health Department has received opacity excess emissions reports submitted for Osceola Cogeneration facility for the period July 1 through August 30, 1997.

A review of the reports reveal that there were excess opacity incidents occurring for at least 10 days during this period. On the days the excess emissions occurred, opacity exceeded the emission limiting standard of 20% opacity (six minutes average) except up to 27% for 6 minutes in any 1-hour period. The Health Department's review is tabulated in the attachment.

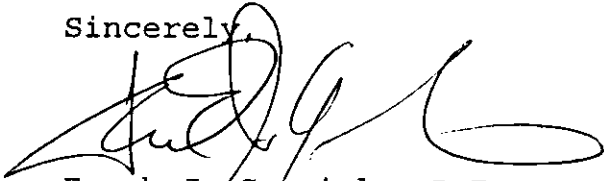
The cause of excess opacity given for most cases was that the ESP performance was impaired by the urea used to control NOx emissions. These excess emissions seem to have been caused by a design flaw rather than an equipment malfunction. The Health Department, therefore, believes that the Osceola Power Limited Partnership failed to comply with the emission limiting standard for opacity for this facility contained in the facility's construction permit and Federal Rule, 40CFR60, NSPS, Subpart Da.

Furthermore, Section 403.161 and 403.141, Florida Statutes provide that whoever commits a violation shall be liable to the state from any damage caused an civil penalties and/or fine up to \$10,000.00 per day or portion thereof.

If your company wishes to pursue the administrative resolution of this matter please contact Mr. Ajaya K. Satyal at Palm Beach County Health Department, 901 Evernia Street, West Palm Beach, Florida 33402, telephone (561) 355-3070, within 10 days of receipt of this letter. A meeting will be arranged with the Health Department personnel and representative(s) of the Florida Department of Environmental Protection to discuss this matter.

Failure to respond to this notice could result in further enforcement action.

Sincerely,



Frank J. Gargiulo, P.E., R.S., Director
Division of Environmental Health & Engineering

FJG/AS/lh

cc: Vickie Coleman, Attorney, PBCHD
James Meriwether, OSPLP
David Knowles, P.E., DEP, Fort Myers
Jim Pennington, P.E., DARM, Tallahassee
Al Linero, P.E., DARM, Tallahassee

W. Hanks, BAR

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SEP 19 1997

BUREAU OF
AIR REGULATION

Excess Emissions Report Review, July 28-Aug 30, 1997.
Osceola Cogeneration Facility

Date and Unit	Opacity - Highest 6 Minutes Average	Cause Noted By Facility	PBCHD's Comment
July 28, 1997 Unit 2	Opacity 38%	Field voltage effected by Urea	Does not appear to be an equipment malfunction..
July 28, 1997 Unit 2	Opacity 31%	Equipment malfunction ESP performance degradation.	What caused the ESP degradation?
July 28, 1997 Unit 2	Opacity 31%	Equipment malfunction, ESP impaired by Urea.	Does not appear to be an equipment malfunction..
July 28, 1997 Unit 2	Opacity 27%	Equipment malfunction, ESP impaired by Urea.	Does not appear to be an equipment malfunction.
July 30, 1997 Unit 2	Opacity 28%	Equipment malfunction, ESP performance impaired by Urea	Does not appear to be an equipment malfunction.
Sept 31, 1997 Unit 2	Opacity 38%	Equipment malfunction, ESP performance impaired by Urea	Does not appear to be an equipment malfunction.
Aug 01, 1997 Unit 2	Opacity 38%	Equipment malfunction, ESP performance impaired by Urea	Does not appear to be an equipment malfunction.
Aug 11, 1997 Unit 2	Opacity 31%	Load change, high air flow, diminished ESP voltage.	If high air flow was caused by other equipment failure and that caused ESP voltage to drop, it can be considered an equipment malfunction. Please explain.
Aug 12, 1997 Unit 2	Opacity 31%	Load change, high air flow, diminished ESP voltage.	Does not appear to be an equipment malfunction.
Aug 18, 1997 Unit 2	Opacity 34%	Equipment malfunction, ESP performance impaired by Urea.	Does not appear to be an equipment malfunction.
Aug 30, 1997 Unit 2	Opacity 45%	Low ESP Voltage, ESP impaired by Urea, also load swing.	Does not appear to be an equipment malfunction.



September 8, 1997

Al Linero, PE
New Source Review Section
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400
FAX: (904) 922-6979

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SEP 11 1997

BUREAU OF
AIR REGULATION

**Re: Osceola Power Limited Partnership
Modification of AC50-269980 / PSD-FL-197A
Request to Revise Standards for CO, Hg, NOx, Pb, and SO₂, for Cogeneration Boilers**

0990331-006-AC
PSD-FL-197E

Dear Mr. Linero:

We have reviewed the above referenced request and have the following comments:

Carbon Monoxide

After a review of the standards set for similar industries, the Health Department has no objection to the request to revise the averaging time to a 24 hour block average. We request that the permit specifically state compliance will be demonstrated by continuous monitor for each day of operation.

Mercury

The test results for mercury indicate that these emissions may vary greatly depending on the mercury content in the wood waste feed. The applicant states that no correlation can be made between the controlled emission rate and the activated carbon feed rate based on these past tests. However, a review of the test results indicates that only the controlled emissions are being measured during the testing; the uncontrolled mercury emissions are being *calculated* based on sampling and analysis of the wood waste and feed rate. The Health Department believes this leads to inaccurate results. Before establishing a new, higher mercury emissions limit, we request the following:

- Conduct a series of simultaneous mercury emissions tests on the inlet and outlet at varying carbon feed rates to establish a relationship between the control device and mercury emissions.
- Based on the new test results, establish a minimum carbon feed rate. Continuously monitor this feed rate to determine compliance.
- Annually test inlet/outlet at minimum carbon feed rate to check relationship.

Lead

If lead emissions are being controlled with a 97% efficiency, but the emissions limit is still being exceeded, then the assumption is that the lead content of the wood waste is higher than originally estimated. Rather than increase the lead emissions limit, the Health Department asks for better control and screening of the wood waste materials being burned in the boilers.

Nitrogen Oxides (NOx)

The following summarizes my understanding of the NOx issue:

Osceola originally requested a lower NOx limit (0.12 lb/mmBTU, biomass) than Okeelanta Power (0.15 lb/mmBTU, biomass) in order to escape a BACT determination at that time. Increased NOx emissions of 39.3 TPY were kept just below the 40 TPY significance level. This lower emissions rate required a 40% higher urea injection rate to obtain only a 7.5% reduction in NOx emissions. The high urea injection rate lead to the following problems:

- Increased ammonia slip resulting in ammonia bisulfate formation which, in turn, lead to fowling of the air preheater, fowling of the electrostatic precipitator, and eventually excess opacity.
- Increased superheater tube failure resulting in additional boiler down time, increased emissions during startup and shutdown, and lost power generation and revenues
- Substantially increased expense of urea injection.

The applicant has stated that an inspection by a private consultant concluded that the increase in opacity is the result of a decrease in the resistivity of the flue gas particulate due to the high ammonia and moisture levels. Given the reduced number of these problems at the Okeelanta facility, this conclusion appears to be reasonable. The modeling results indicate that the increased NOx emissions would have an insignificant effect on the ambient air concentration. The only remaining question that the Health Department has is: *Would the PSD/BACT permitting process have been different if the application were processed with the newly proposed NOx limit back in 1993?*

Sulfur Dioxide

The request proposes the following SO₂ standards:

- 0.10 lb/mmBTU of heat input, on a 24-hour average for bagasse and wood waste (*no change*)
- 0.02 lb/mmBTU of heat input, on an annual basis for bagasse (*no change, at this time?*)
- 0.05 lb/mmBTU of heat input, on an annual basis for wood waste (*revision*)

This request is based on additional information not present during the initial application including specific fuel analyses and CEM data. The applicant has also requested a decrease in coal firing to 14,883 tons per year in order to maintain potential SO₂ emissions below 339 tons per year. The Health Department again reminds the applicant of the specific county zoning conditions regulating actual SO₂ emissions from the combined Osceola and Okeelanta cogeneration facilities.

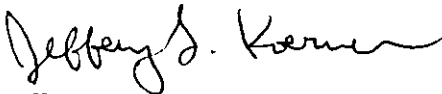
Consideration of Tire Derived Fuels (TDF)

This request includes comments and calculations considering TDF. The application for modification states that the permit modification is being held in abeyance pending test results. It is the position of the Health Department that TDF is not yet an approved fuel and should not be considered in this request. The Department has only granted a temporary test burn period in which to gather data. Based on the test results, TDF *may or may not* be approved as a permanent fuel. It is our understanding that another request for permit modification must be submitted with the test results. Also, the current emissions standards are specific to the type of fuel being burned. Burning TDF may create yet another emissions standard for several of these pollutants. The Health Department requests that the application exclude TDF at this time.

Thank you for the opportunity to comment on this application. If you have any questions, please contact me at the numbers below.

Sincerely,

For the Division Director
Environmental Health and Engineering



Jeffery F. Koerner, PE
Air Pollution Control Section

Phone: (561) 355-4549 SunCom: 273-4549

FAX: (561) 355-2442

cc: L. Martin Hodgkins, Sr. Director
Zoning Division
Palm Beach County Planning, Zoning, & Building
100 Australian Avenue
West Palm Beach, FL 33406

David Buff, PE
Golder Associates Inc.
Fax: (352) 336-6603

Ed Walker, Plan Review Section
Palm Beach County Health Department

Filename: OSC_PSD.LTR



OSCEOLA POWER

September 23, 1997

State of Florida
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400


Attn: Mr. A. A. Linero, P.E.
Administrator

Re: Osceola Power Limited Partnership
DRAFT Permit Modification No. 0990331-006-AC,
(PSD-FL-197E)
Proof of Publication

Dear Mr. Linero:

The "Public Notice of Intent to Issue Air Construction Permit Modification" for Osceola Power was published in the Palm Beach Post on September 12, 1997. Please see the enclosed Proof of Publication for that notice.

Sincerely,


James M. Meriwether
Environmental Manager

cc: C. Rionda
S. Sorrentino
M. Keegan
M. Golden
D. Dee
D. Buff

CC: W. Hanks, BAR
D. Buff, Golden Assoc.
EPA
NPS
SD
Palm Bch. Co.

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SEP 26 1997

BUREAU OF
AIR REGULATION

THE PALM BEACH POST

Published Daily and Sunday
West Palm Beach, Palm Beach County, Florida

PROOF OF PUBLICATION

STATE OF FLORIDA COUNTY OF PALM BEACH

Before the undersigned authority personally appeared Chris Bull who on oath says that she is **Classified Advertising Manager** of The Palm Beach Post, a daily and Sunday newspaper published at West Palm Beach in Palm Beach County, Florida; that the attached copy of advertising, being a **Notice** in the matter of **Intent to Issue air const. permit modif.** in the - - Court, was published in said newspaper in the issues of **September 12, 1997**. Affiant further says that the said The Post is a newspaper published at West Palm Beach, in said Palm Beach County, Florida, and that the said newspaper has heretofore been continuously published in said Palm Beach County, Florida, daily and Sunday and has been entered as second class mail matter at the post office in West Palm Beach, in said Palm Beach County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she/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.

Chris Bull

Sworn to and subscribed before me 15 day of September A.D. 1997

Notary Public

Personally known **XX** or Produced Identification
Type of Identification Produced

tion of proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the roles or statutes that the petitioner contends require reversal or modification of the Department'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 Department to take with respect to the Department's action or proposed action addressed in this notice of intent. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. A complete prospectus is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at: Dept. of Environmental Protection, Bureau of Air Regulation, 111 S. Magnolia Drive, Suite 4, Tallahassee, Florida 32301. Telephone: 850/488-1344. Fax: 850/922-6979. Dept. of Environmental Protection, South District Office, 2295 Victoria Avenue, Suite 364, Fort Myers, Florida 33901. Telephone: 813/332-6975. Fax: 813/332-6969. Palm Beach County, Public Health Unit

tion. The Department will issue FINAL Permit Modification with the conditions of the DRAFT Permit Modification unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. The procedures for petitioning for a hearing are set forth below. Mediation is not available for this action. A person whose substantial interests are affected by the Department's 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 (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #86, Tallahassee, Florida 32399-3000, telephone: 850/488-9370, fax: 850/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must 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 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 will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28.5.207 of the Florida Administrative Code. A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's ac-

NO. 393371
PUBLIC NOTICE OF INTENT
TO ISSUE AIR CONSTRUCTION
PERMIT MODIFICATION
STATE OF FLORIDA
DEPARTMENT
OF ENVIRONMENTAL PROTECTION
DRAFT Permit Modification
No. 0990331-008-AC,
PSD-FL-197E

Osceola Cogeneration Facility
Palm Beach County
The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Osceola Power Limited Partnership, for increases in emissions from the cogeneration facility located at U.S. Highway 98 and Matton Highway in Pahokee, Palm Beach County, A Best Available Control Technology (BACT) determination was required for nitrogen oxides pursuant to Rules 62.212.400 and 410, F.A.C., Prevention of Significant Deterioration (PSD). The facility consists of two multiple fuel boilers which produce steam for use by the adjacent Osceola Farms sugar mill and up to 74 megawatts of electricity. The applicant's name and address are: Osceola Power Limited Partnership, Post Office Box 606, Pahokee, Florida 33476. The permit is to revise allowable limits for lead (Pb), sulfur dioxide (SO₂), nitrogen oxides (NO_x) and Mercury (Hg) when burning woodwaste; revise carbon monoxide (CO) and NO_x while burning fuel oil; and revise the averaging time for CO for all units. Annual emissions will increase only for Pb and NO_x, but only the NO_x increase is significant with respect to PSD. Emissions of NO_x will increase by approximately 100 tons per year (TPY). Control is accomplished by injection of urea into the furnace through Selective Non-Catalytic Reduction (SNCR). The proposed emission limit is 0.14 pounds of NO_x per million Btu of heat input (lb/MMBtu) when burning woodwaste or fuel oil and is among the lowest in the country for multiple fuel boilers. The new limit will also reduce ammonia emissions (slip), improve electrostatic precipitator efficiency, and reduce plume opacity. An air quality impact analysis was conducted. The maximum impact is below the significant impact level of 1 microgram per cubic meter (pg/m³). Emissions from the facility will consume PSD increment but will not significantly contribute to or cause a violation of any state or federal ambient air quality standards. The maximum predicted PSD Class I NO_x increment consumed by this project will be 0.4 percent of the allowable increment of 25 pg/m³ for all projects in the area. The project has an insignificant impact on the Everglades Class I area for the NO_x annual averaging time. The Department will issue the FINAL Permit Modification, in accordance with the conditions of the DRAFT Permit Modification unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions. The Department will accept written comments and requests for public meetings concerning the proposed DRAFT Permit Modification issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments and requests for public meetings 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 filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit Modification, the Department shall issue a Revised DRAFT Permit Modification and require, if applicable, another Public No-

901 Evernia Street
Post Office Box 29
West Palm Beach, Florida
33401
Telephone: 561/355-3070
Fax: 561/355-2442
The complete project file includes the Draft Permit Modification, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-1344, for additional information.
PUB: The Palm Beach Post
September 12, 1997