



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

September 14, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James T. Carlton
Authorized Representative
Okeelanta Power Limited Partnership
Post Office Box 8
South Bay, Florida 33493

Re: DRAFT Permit Modification No. 0990332-006-AC (PSD-FL-196) E
74.9 Megawatt Cogeneration Facility


Dear Mr. Carlton:

Enclosed is one copy of the Draft Air Construction Permit Modification for the cogeneration facility located near South Bay in Palm Beach County. The Department's Intent to Issue Air Construction Permit Modification and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" must be published within 30 (thirty) days of receipt of this letter. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit modification.

Inclusion of emission limits related to burning tire derived fuel will be addressed after the test burn results are evaluated. Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Mr. Willard Hanks or Mr. Linero at 850/488-1344.

Sincerely,


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

CHF/wh/t

Enclosures

In the Matter of an
Application for Permit Modification by:

Okeelanta Power Limited Partnership
Post Office Box 8
South Bay, Florida 33493

DRAFT Permit Modification No. 0990332-006-AC
PSD-FL-196
Okeelanta Cogeneration Facility
Palm Beach County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of DRAFT Permit modification attached) for the proposed project, as detailed in the application specified above and attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Okeelanta Power Limited Partnership, applied on May 5, 1997 to the Department for an air construction permit modification for its cogeneration facility located six miles south of South Bay, Palm Beach County. The request is to revise permitted emission limits for three biomass, oil, and coal-fired boilers to reflect achievable emissions based on actual operations.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit modification is required to modify the emission limits for this facility.

The Department intends to issue this air construction permit modification based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION". The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-1344; Fax 850/ 922-6979) within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit modification pursuant to Rule 62-103.150 (6), F.A.C.

The Department will issue the FINAL Permit Modification, in accordance with the conditions of the enclosed 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 concerning the proposed DRAFT Permit Modification issuance for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION." 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 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 Notice.

The Department will issue the permit modification with the attached conditions 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 #35, Tallahassee, Florida 32399-3000, telephone: 850/488-9730, 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 (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 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 action or 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 rules 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 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.


In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.


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

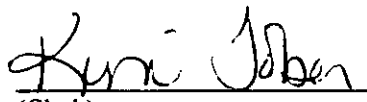
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION (including the PUBLIC NOTICE, and DRAFT permit modification) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9-15-97 to the person(s) listed:

Mr. James T. Carlton, Okeelanta Power L.P. *
Mr. Daniel Thompson, Berger, Davis & Singerman *
Mr. David Knowles, SD
Mr. Jim Stormer, PBCPHU
Mr. Brian Beals, EPA
Mr. John Bunyak, NPS
Mr. David Buff, Golder Assoc.

Clerk Stamp

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


(Clerk) 9-15-97
(Date)

Is your RETURN ADDRESS completed on the reverse side?

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

I also wish to receive the following services (for an extra fee):
 1. Addressee's Address
 2. Restricted Delivery
 Consult postmaster for fee.

3. Article Addressed to:
 James J Carlton, AR
 Atlanta Power, LP
 P O Box 8
 South Bay, FL
 33493

4a. Article Number
 P 265 659 456

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
 9/17/97

5. Received By: (Print Name)
 [Signature]

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

6. Signature (Addressee or Agent)
 X [Signature] J. Ambtus

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

P 265 659 456

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Name		James Carlton
Street & Number		Atlanta Power
Post Office, State, & ZIP Code		South Bay, FL
Postage	\$	
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	
Postmark or Date		9-15-97
		0990332-006-AC
		PSD-FI-196

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

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

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

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Dan Thompson, Esq.
Berger, Davis, Surkeman
215 S. Monroe St.
Tallahassee, FL

4a. Article Number

P 265 659 457

4b. Service Type

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

7. Date of Delivery

SEP 17 1997

5. Received By: (Print Name)

Tracy Adams 32301

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

6. Signature: (Addressee or Agent)

Tracy Adams

X

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

Domestic Return Receipt

P 265 659 457

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	<i>Dan Thompson</i>
Street & Number	<i>Berger Davis</i>
Post Office, State, & ZIP Code	<i>Surkeman</i>
Postage	<i>Tall. FL</i>
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	<i>9-15-97</i>
<i>0990332-006-AC</i>	

PS Form 3800, April 1995

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Permit Modification No. 0990332-006-AC (PSD-FL-196)

**Okeelanta Power L.P. Cogeneration Facility
Palm Beach County**

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Okeelanta Power Limited Partnership for increases in emissions from the cogeneration facility located 6 miles south of South Bay, Palm Beach County. A Best Available Control Technology (BACT) determination was not required pursuant to Rules 62-212.400 and 410, F.A.C., Prevention of Significant Deterioration (PSD). The facility consists of three multiple fuel boilers which produce steam for use at the adjacent Okeelanta sugar mill and up to 74.9 megawatts of electricity. The applicant's name and address are: Okeelanta Power Limited Partnership, Post Office Box 8, South Bay, Florida 33493.

The modification is to revise allowable limits for lead (Pb), sulfur dioxide (SO₂), and Mercury (Hg) when burning woodwaste; revise carbon monoxide while burning fuel oil and coal; and revise the averaging time for CO for all fuels. Annual emissions will increase only for Pb, but the increase is not significant (about 0.3 tons) with respect to PSD review.

Pb emissions are minimized by the electrostatic precipitators used to control particulate emissions at the facility. Hg emissions are controlled by carbon injection. SO₂ emissions are minimized by burning very low sulfur fuel oil and limiting the amount of low sulfur coal which can be fired. CO emissions are controlled by good combustion practices.

An air quality impact analysis was updated for the modification. Emissions increases 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 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 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 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 Notice.

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 #35, 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 (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 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 action or 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 rules 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 project file 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 2295 Victoria Ave. Suite 364 Ft. Myers, Florida 33901 Telephone: 813/332-6975 Fax: 813/332-6969	Palm Beach County Public Health Unit 901 Evernia Post Office Box 29 West Palm Beach, Florida 33401 Phone: 561/355-3070 Fax: 561/355-2442
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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 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-1344, for additional information.

**TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION**

OKEELANTA POWER LIMITED PARTNERSHIP

**74.9 MW Cogeneration Facility
Palm Beach County**

Air Construction Permit No. 0990332-006-AC
PSD-FL-196
[Modifies AC50-219413]

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

September 14, 1997

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. APPLICATION INFORMATION

1.1 Applicant Name and Address

Okeelanta Power Limited Partnership
Post Office Box 8
South Bay, Florida 33493

Authorized Representative: Mr. James T. Carlton

1.2 Reviewing and Process Schedule

05-05-97: Date of Receipt of Application
05-19-97: Department's Preliminary Incompleteness Letter
06-23-97: Golder Assoc. Initial Response to Department's letter of 05-19-97
09-14-97: Issuance of Intent

2. FACILITY INFORMATION

2.1 Facility Location

Okeelanta Power Limited Partnership cogeneration facility is located off Highway 27, approximately six miles south of South Bay, Palm Beach County, next to the Okeelanta Corporation sugar mill. The UTM coordinates of this site are Zone 17, 524.9 km East and 2940.1 km North.

2.2 Standard Industrial Classification Code (SIC)

Major Group No.	49	Electric Generation
Group No.	4911	External Combustion Boiler - Electric Generation

2.3 Facility Category

This 74.9 megawatt electric cogeneration facility is allowed to burn biomass (bagasse and wood waste material), No. 2 fuel oil, and low sulfur coal in three Zurn spreader-stoker boilers. Depending on the outcome of a future tire derived fuel (TDF) test burn, they may be permitted to burn TDF in the future. The facility includes fuel and ash handling equipment and steam turbines. Steam generated by the units is used at the adjacent sugar mill while electricity is sold offsite.

Okeelanta Power is classified as a major or Title V source of air pollution because emissions of several regulated air pollutants, including particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) exceed 100 TPY.

This industry is included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for various criteria pollutants, the facility is also a major facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Per Table 62-212.400-2, modifications at the facility resulting in emissions increases greater than 40 TPY of NO_x or SO₂ or 0.6 TPY of lead (Pb) require review per the PSD rules and a determination for Best Available Control Technology (BACT) per Rule 62-212.410, F.A.C.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

3. PROCESS DESCRIPTION

The source is a 74.9 MWe (gross) capacity biomass/coal-fired cogeneration facility consisting of three steam boilers and one steam turbine and associated equipment. During the sugar processing season, the cogeneration facility is to provide steam to the existing Osceola Farms sugar mill by burning primarily bagasse, which is the cellulose fiber coproduct resulting from the sugar cane grinding process, while also generating electricity. During the off-season, the cogeneration facility will burn primarily wood waste to generate electricity. The facility is also permitted to burn low sulfur coal and low sulfur fuel oil.

The maximum heat input to each of the three boilers is 715 million Btu per hour (MMBtu/hr) when firing biomass and 490 MMBtu/hr when firing No. 2 fuel oil or low sulfur coal. Maximum annual coal burning will be limited to 69,720 tons per year (TPY). Coal and oil burning combined are limited to a maximum of 25 percent of the heat input to the facility on a quarterly basis.

Air pollution control equipment serving each boiler consists of an electrostatic precipitator (ESP) to control particulate matter (PM), including heavy metal emissions, a selective non-catalytic reduction (SNCR) system for the control of NO_x emissions, and a carbon injection system for mercury (Hg) control. A simplified process flow diagram of the cogeneration facility is presented in Figure 1.

4. PROJECT DESCRIPTION

This permit addresses the following emissions units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
001	Power	Unit 1 Boiler and associated equipment
002	Power	Unit 2 Boiler and associated equipment
003	Power	Unit 3 Boiler and associated equipment

No physical modifications are related to the proposed project. The modification relates to revisions of conditions in the original air construction permit issued in September, 1993.

The requested modifications consist of a minor reduction in the amount of coal the facility can burn and allows minor increases in the hourly emissions of lead (Pb), SO₂, CO, and Hg and a revision of the averaging time for the CO limits. Except for lead, annual emissions of these pollutants will not exceed presently permitted emission limits.

The requested changes in the permit limits will not increase permitted annual emissions of PSD regulated pollutants except for Pb. Emission increases for Pb are below the significant emission level of 0.6 TPY per Table 62-212.400-2, F.A.C. and do not require PSD or non-attainment new source review.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

5. RULE APPLICABILITY

The three boilers are subject to federal new source performance standards (NSPS) for electric utility boilers (40 CFR 60, Subpart Da), incorporated by reference in Rule 62-204.800, F.A.C. Because the facility will burn yard waste potentially originating from residential sources, the boilers are also subject to a reporting and record keeping requirements of under 40 CFR 60, Subparts Ea and Cb, incorporated by reference in Rule 62-204.800, F.A.C. The existing permits limit combustion of municipal solid waste (MSW), including yard waste, to 30 percent (weight basis) on a calendar quarter basis. Therefore no provisions of Subparts Ea and Cb will apply to the facility other than the record keeping and reporting requirements.

The proposed project is subject to permitting, preconstruction review, emissions limits and compliance requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).

This facility is located in Palm Beach County, an area designated as attainment or maintenance for all criteria pollutants in accordance with Rule 62-204.360, F.A.C. The proposed project is not subject to review under Rule 62-212.400., F.A.C., Prevention of Significant Deterioration (PSD), because the potential emission increases for Pb are below the significant emission rates given in Chapter 62-212, Table 62-212.400-2, F.A.C. However the emission increases described in the project description, constitute a modification which requires a construction permit per Rule 62-210.300.

The emission units affected by this permit modification shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.260	Prevention of Significant Deterioration Increments
Rule 62-204.360	Designation of Prevention of Significant Deterioration Areas
Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration
Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-296.510	RACT for Major NO _x /VOC Emitting Sources
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods
Rule 62-297.520	EPA Continuous Monitor Performance Specifications

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

6. SOURCE IMPACT ANALYSIS

6.1 Emission Limitations

The modified cogeneration facility will increase allowable annual emissions of the following PSD pollutants (Table 212.400-2, F.A.C.): Pb. Emission limits for individual fuels and averaging times are being revised for SO₂, CO, and Hg; however, annual emissions remain unchanged. The permitted and requested allowable emissions for this modification are summarized in the following table.

6.2 Emission Summary

EMISSION UNITS 001, 002, and 003 (total)

Pollutant	Current Allowable	Requested Allowable	Net Increase	PSD Significant Level
	tons/yr	tons/yr	tons/yr	tons/yr
SO ₂	1154.3	1154.3	0	40
CO	2012.5	2012.5	0	100
Mercury	0.030	0.030	0	0.1
Lead	0.17	0.454	0.284	0.60

According to the construction permit, Specific Condition No. 22, compliance tests are to be conducted every 6 months for a period of 2 years in order to confirm the emission limits for certain pollutants in the permit. Tests conducted while burning wood indicate that Okeelanta Power was not meeting the initial emissions limits for some pollutants that were listed in the application for permit to construct and incorporated into the original air construction permit.

As a condition of the construction permit, the permittee was required to analyze the wood waste being burned at the cogeneration plant. Their analysis showed the sulfur, lead and mercury contents were higher than originally estimated.

The sulfur content is variable, ranging from 0.02 to 0.17 percent sulfur and resulting in emissions of up to 0.08 lbs/MMBtu. The original construction permit allowed 0.02 lbs/MMBtu. Based on the emission data collected to date, the permittee is requesting that the annual average emission limit for wood waste be raised to 0.05 lbs/MMBtu. To prevent an increase in annual sulfur dioxide emissions (TPY), the permittee is reducing the amount of coal that may be burned at the facility to 15.1 percent.

The carbon monoxide (CO) emission limit in the construction permit for biomass is 0.35 lbs/MMBtu, 8-hr average. Emission data to date have shown CO emissions as high as 0.7 lbs/MMBtu. The higher CO emissions were caused by fluctuations in fuel quality and unusually wet biomass. Emission data show the 0.35 lbs/MMBtu limit can be met on a 24-hour basis. The annual emissions are not changed by having the same limit with a longer averaging time. They requested the CO emission standard for fossil fuels also be raised to 0.35 lbs/MMBtu because of the loss in efficiency when fossil fuels are burned with biomass. Overall there will still be a very substantial reduction in CO emissions compared with the boilers replaced by the cogeneration facility.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The allowable lead emission rate for biomass in the construction permit is 2.5×10^{-5} lbs/MMBtu. Actual test data show lead emissions during the burning of wood waste to vary from 1.23 to 13.6×10^{-5} lbs/MMBtu. The permittee requested an emission limit of 1.6×10^{-4} lbs/MMBtu for wood waste (no change for bagasse). This will result in an increase in allowable lead emissions of 0.284 TPY.

The allowable emission limits for mercury in the construction permit were 6.3×10^{-6} lbs/MMBtu for bagasse and 0.29×10^{-6} lbs/MMBtu for wood waste. Compliance test data for mercury on the cogeneration plant while burning wood waste indicates mercury emissions of 0.95 to 3.23×10^{-6} lbs/MMBtu. Based on the compliance test results, the permittee is requesting a mercury emission limit of 4.0×10^{-6} lbs/MMBtu for wood waste. In order to maintain mercury emissions from the facility at 0.0300 TPY, the permittee is requesting that the mercury limit for bagasse be reduced to 5.43×10^{-6} lbs/MMBtu. Mercury emissions will continue to be controlled by carbon injection.

6.4 Air Quality Analysis

The air modeling analysis was updated for the hazardous air pollutants (HAPs) using the proposed emissions and the actual stack parameters for the three boilers (stack diameter 10 feet, stack height 225 feet). The results show the maximum predicted impacts for the HAPs are below the Florida Air Reference Concentrations.

7. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by Okeelanta Power Limited Partnership, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations provided the Department's previous Best Available Control Technology Determination is implemented and certain conditions are met. The modified conditions modified are listed in the attached draft conditions of approval.

Permit Engineer: Willard Hanks

Reviewed and Approved by A. A. Linero, P.E.

DRAFT

October XX, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James T. Carlton
Authorized Representative
Okeelanta Power Limited Partnership
Post Office Box 8
South Bay, Florida 33493

Re: Permit Modification No. 0990332-006-AC (PSD-FL-196)
74.9 Megawatt Cogeneration Facility

Dear Mr. Carlton:

The Department has reviewed your application dated May 5, 1997 to modify the original construction permit for the Okeelanta Cogeneration Facility. The application is to revise emission limits for carbon monoxide (CO), lead (Pb), mercury (Hg), and sulfur dioxide (SO₂). Construction permit No. AC50-219413 (PSD-FL-196) is hereby modified as follows:

SPECIFIC CONDITIONS NO. 15.

The consumption of No. 2 fuel oil shall be less than 25 percent of the total heat input to each boiler unit in any calendar quarter. Not more than ~~73,714~~ 69,720 tons of coal shall be burned at this facility during any 12-month period. The combined heat input for coal and oil shall be less than 25 percent of the heat input on a calendar quarter basis.

SPECIFIC CONDITION NO. 16.

The permittee shall maintain a daily log of the amounts and types of fuels used. The amount, heating value, beryllium content (coal only), sulfur content, and equivalent SO₂ emission rate (in lbs/MMBtu) of each fuel oil and coal delivery shall be kept in a log for at least two years. For each calendar month, the calculated, SO₂, mercury, and lead emissions and 12-month rolling average shall be determined (in tons) and kept in a log.

SPECIFIC CONDITION NO. 20.

Visible emissions from any boiler shall not exceed 20 percent opacity, 6-minute average, except up to 27 percent opacity is allowed for up to 6 minutes in any 1-hour period. Based on a maximum heat input to each boiler of 715 MMBtu/hr for biomass fuels and 490 MMBtu/hr for No. 2 fuel oil and coal, stack emissions shall not exceed any limit shown in the following table:

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Pollutant	EMISSION LIMIT (per boiler) ^d						Total ^e Three Boilers (TPY)
	Biomass		No. 2 Oil		Bit. Coal		
	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	
Particulate (TSP)	0.03	21.5	0.03	14.7	0.03	14.7	172.5
Particulate (PM ₁₀)	0.03	21.5	0.03	14.7	0.03	14.7	172.5
Sulfur Dioxide							
3-hour average					1.2	588.0	
24-hour average	0.10	71.5	0.05	24.5	1.2	588.0	
Annual Average	<u>0.02 a</u>				1.2 a		1,154.3 f
<u>Bagasse</u>	<u>0.02 a</u>						
<u>Wood Waste</u>	<u>0.05a c</u>						
Nitrogen Oxides							
Annual average	0.15 a	107.3 a	0.15 a	73.5 a	0.17 a	83.3 a	862.5
Carbon Monoxide							
824-hour average	0.35	250.3	<u>0.2 0.35</u>	<u>98.0 171.5</u>	<u>0.2 0.35</u>	<u>98.0 171.5</u>	2,012.5
Volatile Organic Compounds	0.06	42.9	0.03	14.7	0.03	14.7	345
Lead	<u>2.5 x 10⁻⁵</u>	<u>0.018</u>	<u>8.9 x 10⁻⁷</u>	<u>0.0004</u>	<u>6.4 x 10⁻⁵</u>	<u>0.031</u>	<u>0.17 0.454f</u>
<u>Bagasse</u>	<u>2.5 x 10⁻⁵</u>	<u>0.018</u>					
<u>Wood Waste</u>	<u>1.6x10^{-4c}</u>	<u>0.114c</u>					
Mercury			<u>2.4 x 10⁻⁶</u>	<u>0.00118</u>	<u>8.4 x 10⁻⁶</u>	<u>0.0041</u>	<u>0.0300f</u>
Bagasse	<u>6.3 x 10⁻⁶</u>	<u>0.0045 b</u>					
<u>Wood Waste</u>	<u>5.43 x 10^{-6b}</u>	<u>0.0039 b</u>					
	<u>0.29 x 10^{-6e}</u>	<u>0.00021 e</u>					
	<u>4.0 x 10^{-6 c}</u>	<u>0.0029 c</u>					
Beryllium			<u>3.5 x 10⁻⁷</u>	<u>0.00017</u>	<u>5.9 x 10⁻⁶</u>	<u>0.0029</u>	<u>0.0052</u>
Fluorides			<u>6.3 x 10⁻⁶</u>	<u>0.0003</u>	<u>0.024</u>	<u>11.8</u>	<u>21.2</u>
Sulfuric Acid Mist	0.003	2.15	0.0015	0.74	0.036	17.6	34.6

^a Compliance based on 30-day rolling average, per 40 CFR 60, Subpart Da.

^b Emission limit for bagasse. Subject to revision after testing pursuant to Specific Conditions Nos. 24 and 25.

^c Emission limit for wood waste. Subject to revision after testing pursuant to Specific Conditions Nos. 24 and 25.

^d The emission limit shall be prorated when more than one type of fuel is burned in a boiler.

^e Limit heat input from No. 2 fuel to less than ~~25%~~ 24.9 of total heat input on a calendar quarter basis, coal to ~~73,714~~ 69,720 tons during any 12-month period, and the combination of oil and coal to less than ~~25%~~ 24.9 of the total heat input on a calendar quarter basis.

^f Compliance based on a 12-month rolling average for any fuel combination.

The permittee shall comply with the excess emissions rule contained in Rule 62-296.210, F.A.C. In addition, the permittee is allowed excess emissions during startup conditions, provided such excess emissions do not exceed a duration of four hours, and such emissions in excess of two hours do not exceed six (6) times per year.

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SPECIFIC CONDITION NO. 21.

- a. Within 60 calendar days after achieving the maximum capacity at which each unit will be operated, but no later than 180 operating days after initial startup, the permittee shall conduct emission compliance tests for all air pollutants listed in Specific Condition No. 20 (including visible emissions). Test shall be conducted during normal operations (i.e., within 10 percent of the heat input). The permittee shall furnish the Department a written report of the results of such performance tests within 45 days of completion of the tests. The performance tests will be conducted in accordance with the provisions of 40 CFR 60.46a.
- b. Compliance with emission limitations for each fuel stated in Specific Condition No. 20 above shall be demonstrated using EPA Methods, as contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources), continuous emissions monitoring data, or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants), or any other method as approved by the Department, in accordance with F.A.C. Rule 62-297.620. A test protocol shall be submitted for approval to the Bureau of Air Regulation at least 90 days prior to testing.

<u>EPA Method*</u>	<u>For Determination of</u>
1	Selection of sample site and velocity traverses.
2	Stack gas flow rate when converting concentrations to or from mass emission limits.
3 or 3A	Gas analysis when needed for calculation of molecular weight or percent O ₂ .
4	Moisture content when converting stack velocity to dry volumetric flow rate for use in converting concentrations in dry gases to or from mass emission limits.
5	Particulate matter concentration and mass emissions.
201 or 201A	PM ₁₀ emissions.
6, 6C, or 19	Sulfur dioxide emissions from stationary sources.
7, or 7E	Nitrogen oxide emissions from stationary sources.
8 (modified)	Sulfuric acid mist. **
9	Visible emission determination of opacity. - At least three one hour runs to be conducted simultaneously with particulate testing. - At least one truck unloading into the mercury reactant storage silo (from start to finish).
10	Carbon monoxide emissions from stationary sources.
12	Determination of inorganic lead emissions from stationary sources.
13A or 13B	Fluoride emissions from stationary sources.
18 or 25	Volatile organic compounds concentration.
101A	Determination of particulate and gaseous mercury emissions.
104	Determination of beryllium emissions from stationary sources.
108	Determination of particulate and gaseous arsenic emissions.
EMTIC Test Method CTM-012.WPF	Chromium and copper emissions.

* Other approved EPA test methods may be substituted for the listed method unless the Department has adopted a specific test method for the air pollutant.

** Test for sulfuric acid mist only required when coal is burned at the facility.

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A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit. Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; 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 of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Howard L. Rhodes, Director
Division of Air Resources
Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT MODIFICATION (including the FINAL permit Modification) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on _____ to the person(s) listed:

- Mr. James T. Carlton, Okeelanta Power L.P. *
- Mr. Daniel Thompson, Berger Davis & Singerman *
- Mr. David Buff, Golder Associates
- Mr. Brian Beals, EPA
- Mr. John Bunyak, NPS
- Mr. David Knowles, SD
- Mr. James Koerner, PBCPHU

Clerk Stamp


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

(Clerk)

(Date)

Memorandum

Florida Department of Environmental Protection

TO: ~~Clair Fancy~~
THRU: Al Linero 
FROM: Willard Hanks
DATE: September 3, 1997
SUBJECT: Okeelanta Power L.P.
Modification of Permit
AIRS No. 0990332-006-AC (PSD-FL-196)

Attached for your approval is an Intent to Issue and associated documents to modify the construction permit for Okeelanta Power's cogeneration facilities located near South Bay in Palm Beach County.

The modification will require a minor reduction in the amount of coal that can be burned in the facility, and allows increases in the hourly emissions of sulfur dioxide, lead, mercury and carbon monoxide. Except for lead, and as provided for by Specific Conditions of the existing permit, the proposed adjustments will result in annual emissions below the current annual permitted values. The modification also clarifies some compliance testing procedures, including when the sulfuric acid mist compliance test is to be conducted.

That part of this request having to do with the burning of tire derived fuel is being held in abeyance until after the Department reviews the test burn results. The Department may receive a similar request from this facility once emission data is collected on the burning of bagasse and tire derived fuels at this plant.

I recommend your approval and signature of the Intent to modify the permit for the burning of wood waste.

WH/t

Attachment



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

P.E. Certification Statement

Permittee:

DEP File No. 0990332-006-AC (PSD-FL-196)

Okeelanta Power L.P.
Cogeneration Facility
South Bay, Palm Beach County

Project type:

Modification of Air Construction Permit for 74.9 Megawatt cogeneration facility. Revision of various emission limits below PSD-significance levels.

I HEREBY CERTIFY that the 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 aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

A.A. Linero, P.E.

Registration Number: 26032

9/14/97

Date

Department of Environmental Protection
Bureau of Air Regulation
New Source Review Section
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Phone (850) 488-1344
Fax (850) 922-6979

ceg 9/14