

# INTEROFFICE MEMORANDUM

**Date:** 20-Apr-1999 07:32pm

**From:** Jeff\_Koerner

Jeff\_Koerner@dcf.state.fl.us@PMDf@EPIC66

**Dept:**

**Tel No:**

**To:** reynolds\_j ( reynolds\_j@A1@DER )  
**CC:** liner0\_a ( liner0\_a@A1@DER )

**Subject:** Okeelanta: Foward of AJ's Memo on Test Failures

John,

Last I heard, David Buff agreed to waive the time clock requirements as long as Palm Beach County agreed not to take enforcement action due to the delay - which they did. AJ Satyal, PBC's Compliance Supervisor, just sent me the attached memo regarding test failures for all three of the cogeneration boilers at Okeelanta. I thought I'd pass it along, just for your information. Please call me if you want to discuss this project.

Take care.

Jeff

**Preliminary Review:  
Okeelanta Cogeneration Facility's Compliance Test Report**

The Palm Beach County Health Department received copies of compliance test report from the Okeelanta Cogeneration Facility on April 14, 1999. Compliance test was performed for PM, PM10, SO2, NOX, CO, VOC, Opacity, Fluoride, Arsenic, Beryllium, Chromium, Copper, Lead and Mercury on all three boilers.

Compliance test was conducted by the Air Consulting Engineering, Inc., from January 22-February 5, 1999 for Boiler A, December 31, 1998-January 21, 1999 for Boiler B, and December 29-30, 1998 and January 6-11, 1999 for Boiler C.

Preliminary review indicates that the following boilers are failing the emission standard for the pollutants listed on the table:

**Boiler A.**

	Bagasse lbs/mmbtu	Bagasse lbs/hr	Wood lbs/mmbtu	Wood lbs/hr	Allowable lbs/mmbtu	Allowable lbs/hr
PM	0.27	205.1	0.14	95.2	0.03	21.5

**Boiler B.**

	Bagasse lbs/mmbtu	Bagasse lbs/hr	Wood lbs/mmbtu	Wood lbs/hr	Allowable lbs/mmbtu	Allowable lbs/hr
PM	0.12	98.7	0.08	56.0	0.03	21.5

**Boiler C.**

	Bagasse lbs/mmbtu	Bagasse lbs/hr	Wood lbs/mmbtu	Wood lbs/hr	Allowable lbs/mmbtu	Allowable lbs/hr
PM	0.20	170.0	0.43	296.4	0.03	21.5
Lead			4.0E-04	.276	1.6E-04	0.114
PM10			0.05	39.0	0.03	21.5

Final review of the report will be available upon completion.

RFC-822-headers:

Received: from notesmta.dcf.state.fl.us ([204.194.38.7])

by EPIC66.DEP.STATE.FL.US (PMDF V5.1-4 #7204)

with SMTP id <01JA9N86A11S000OET@EPIC66.DEP.STATE.FL.US>; Tue,  
20 Apr 1999 19:32:24 EDT

Received: by notesmta.dcf.state.fl.us(Lotus SMTP MTA v1.2 (600.1 3-26-1998))

id 85256759.0081C82A ; Tue, 20 Apr 1999 19:37:33 -0400

Content-disposition: inline

X-Lotus-FromDomain: INTERNET-MAIL

## Golder Associates Fax

To: Joe Khan

Fax Number: 850-922-6979

Company: FDEP

Date: April 14, 1999

From: David Buff

e-mail: @golder.com

Our ref: 983-7564-0200

Voice Mail:

RE:

Total pages (including cover): 2

Hard copy to follow

---

### MESSAGE

---



6241 NW 23rd St., Suite 500  
Gainesville, FL 32653  
U.S.A.  
Telephone: (352) 336-5600  
Fax: (352) 336-6603

**Comprehensive Consulting  
Services in Geotechnical  
Engineering, Environmental  
Remediation and Waste  
Management**

*Environmental Remediation*

*Waste Management*

*Air Resources*

*Water Resources*

*Landfill Siting & Design*

*Geophysics*

*Civil Engineering & Construction*

*Mining & Quarrying*

*Oil and Gas Waste Management*

*Soil and Rock Mechanics*

*Nuclear Waste Management*

*Risk Assessment*

*Energy Projects*

*Transportation*

Offices in Australia, Canada,  
Finland, Germany, Hong Kong,  
Hungary, Indonesia, Italy, South  
America, Sweden,  
United Kingdom, United States

*The document(s) included with this transmission are only for the recipient named above and contain privileged/confidential information. Unauthorized disclosure, dissemination, or copying of this transmission is strictly prohibited. If received in error, please destroy. Questions or problems with this transmission should be referred to the receptionist at the number provided above.*

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WAIVER OF 90 DAY TIME LIMIT FOR ISSUANCE OF PERMIT  
UNDER SECTIONS 120.60(2) and 403.0876, FLORIDA STATUTES

Applicant: **Okeelanta Power, L.P.**

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

The undersigned has read Sections 120.60(2) and 403.0876, Florida Statutes (F.S.), and fully understands the applicant's rights under those sections.

With regard to the above referenced permit application, the applicant hereby, with full knowledge and understanding of its rights under Sections 120.60(2) and 403.0876, F.S., waives the right under those statutes to have the application for a permit issued or denied by the State of Florida Department of Environmental Protection within the ninety day time period proscribed in those sections. Said waiver is made freely and voluntarily by the applicant, is in its self-interest, and is made without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Protection.

This waiver shall expire on **May 10, 1999**.

The undersigned is authorized to make this waiver on behalf of the applicant.

David A. Buff 04/14/99  
Signature/Date

Golder Associates Inc.  
David A. Buff  
Principal Engineer  
Name/Title (please print)

cc: James Meriwether

**FACSIMILE TRANSMITTAL COVER SHEET**

**DATE:** April 8, 1999  
**FROM:** Jeff Koerner, BAR - New Source Review Section (PBC)  
Fax: 561-355-2442  
SunCom: 273-3136, ext. 1142  
**TO:** John Reynolds, BAR - New Source Review Section  
Fax: 850-922-6979  
**RE:** Okeelanta CO / Excess Emissions Modification

---

John,

I am attaching my review and comments on this project. I hope they will be useful in preparing a technical evaluation or perhaps permit conditions. In short, my recommendation is to:

- Revise the averaging period for the CO standard from a 24-hour basis to a rolling 30-day basis.
- Leave the CO numerical limit at 0.35 lb/mmBTU.
- Specifically define startup, shutdown, and malfunction for this facility, and specify that monitoring data collected during these periods should be excluded from the compliance average in accordance with the NSPS.
- Only allow "excess emissions" for short-term standards defined as shorter than 24-hour averages. This is because the long-term averages (24-hour or greater) are allowed to exclude data from the compliance average for startup, shutdown, and malfunction anyway.

I believe that this would meet the applicant's request while maintaining the integrity of the original permit conditions. Of course, this is just my opinion based on my 8 days of PSD permitting experience. Please call me if you have any questions or need me to proof anything.

Thanks!

Jeff

P.S. I also sent an email of this so you could have the text. JK



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

## INTEROFFICE MEMORANDUM

Date: April 7, 1999

To: Clair Fancy, PE, Chief  
Bureau of Air Regulation - DEP

From: Jeffery Koerner, P.E.  
New Source Review Section, BAR-DEP

Subject: **Okeelanta Power Limited Partnership (OkPLP) Cogeneration Facility**  
**Request to Revise CO Standards and Define Excess Emissions**  
**Project No. 099-0332-010-AC / Original PSD Permit No. PSD-FL-196 F**

Just before Al Linero went on vacation, he asked me to work with John Reynolds on this project because it was "in my neighborhood". He also asked me to act as the reviewing P.E. for this project because I would be working with John. However, I feel very uncomfortable with doing this, as I was brought in very late and really didn't have supervision over the project. Also, I am at a disadvantage in that I'm not quite set up for all of the DEP permitting formats just yet. John and I have discussed this, and he has agreed to consider my comments, complete the necessary paperwork and submit to you for your approval and certification, if necessary. John believes our approach may qualify as a "letter amendment" which would not require a Public Notice. This has been done previously for this facility's PSD permit and may require refunding a portion of the processing fee already collected. In a brief discussion with Joe Kahn (acting supervisor), he indicated that, although perhaps this action would be a non-PSD modification, he believes it would require a Public Notice.

I have attached my comments and recommendations on this project for your review. These may be useful in preparing a technical evaluation and revised permit conditions. Please let me know if this is satisfactory.

cc: John Reynolds, Project Engineer  
Al Linero, P.E., New Source Review Supervisor  
Joe Kahn, P.E. Acting New Source Review Supervisor

## 1. APPLICATION INFORMATION

Okeelanta Power Limited Partnership (OkPLP) operates a 74.9 MW cogeneration facility located 6 miles south of South Bay, off U.S. Highway 27 in Palm Beach County, Florida. The cogeneration plant consists of three identical boilers with associated process and control equipment. On December 15, 1998, Golder and Associates Inc. submitted a request to modify the current PSD permit with respect to the CO limit and excess emissions. The application became complete on February 2, 1999. **I believe Day No. 74 is April 17, 1999 (Saturday).**

## 2. MODIFICATION REQUEST

The applicant requests modification of permit PSD-FL-196 for the following two items.

- 2.1 **CO Limit:** Revise current CO emissions limiting standard from 0.35 lb/mmBTU based on a 24-hour average to 0.50 lb/mmBTU based on a 30-day rolling average.

**Basis for Request:** Additional operating and continuous monitoring data for CO emissions indicate problems complying with the current standard. Problems complying with the current CO standard are due to "... the uncontrollable moisture content of the wood fired ...". The numerical increase of the standard is needed to provide a "... greater margin of safety ...".

- 2.2 **Excess Emissions:** Revise the permitted periods of "excess emissions" such that excess emissions during startup, shutdown, off-line and malfunction shall be excluded from averaging calculations and from determinations of compliance with the emissions limits of the permit. The applicant defines these various periods of excess emissions as:

**Startup:** Between 4000 and 150,000 lb/hr of steam flow, or six hours, whichever occurs first.

**Shutdown:** Between 150,000 and 4000 lb/hr of steam flow, or six hours, whichever occurs first.

**Off-Line:** Operating at less than 4000 lb/hr of steam flow

**On-Line:** Operating above 150,000 lb/hr of steam flow

**Malfunction:** The duration of malfunctions shall not exceed three hours per occurrence.

**Basis for Request:** Additional operating and continuous monitoring data for CO emissions indicate problems complying with several of the emissions limiting standards especially during periods of startup and shutdown as well as numerous incidents of malfunctions. 150,000 lb/hr of steam is approximately 33% of capacity.

## 3. RULE APPLICABILITY

- 3.1 **CO Limit:** As requested, increasing the CO limit to 0.5 lb/mmBTU would result in an increase of more than 800 tons per year of CO. The applicant states that Rule 62-212.400(2)(g)5., F.A.C. (Relaxations of Restrictions on Pollutant Emitting Capacity), provides relief from a PSD permitting for this request because the net emissions of the cogeneration plant will not exceed the old baseline emissions of the sugar mill. However, this facility has been in operation for several years and has reestablished baseline emissions. In addition, the old sugar mill boilers were never retired and are now permitted to operate through April 1, 2001. In my opinion, increasing the CO emissions above the significant emissions rate would now require a BACT determination complete with modeling analysis. I believe Rule 62-212.400(2)(g)5., F.A.C. was intended to prevent the "backsliding" of permitted emissions standards. This is the state's version of the federal source obligation requirements in 40 CFR 52.21.

- 3.2 **Excess Emissions:** Because the boilers are subject to BACT and NSPS emission limiting standards, permitting excess emissions in advance would likely require the approval of the EPA and perhaps a new Public Notice.

## 4. OTHER INFORMATION

- 4.1 **Inspections/Comments from Local Air Program:** I have had several conversations with Ajaya Satyal, the air compliance supervisor for the Palm Beach County Health Department (PBCHD), regarding the current operations of this facility. Emissions compliance stack tests were recently performed for all boilers. Although the final reports have not yet been submitted, according to the testing consultant, the preliminary results indicate



some of the boilers will fail tests for more than one pollutant. Also, Mr. Satyal performed an inspection of the electrostatic precipitator during the summer of 1997. He noted that several of the large precipitator plates were warped and corroded which was affecting the particulate removal performance. Plant personnel indicated that a complete overhaul of this equipment was scheduled to bring the unit back up to design specifications. However, this maintenance and repair has yet to be performed. In addition, the plant seemed to be experiencing an inordinate amount of shutdowns for a power generating facility. Mr. Satyal expressed his concern that the increasing number of excess emissions incidents for opacity, carbon monoxide, and perhaps particulate matter may be the result of a gradual degradation of the process and control equipment.

- 4.2 Quarterly Excess Emissions Report: Mr. Satyal also sent me a letter concerning the most recent quarterly excess emissions report (January, February, and March of 1999) indicates several excess emissions incidents for the quarter. However, many of these incidents appear to be during periods of startup, shutdown, and malfunction. Because of the higher-than-expected CO levels, the plant began developing a "boiler control strategy" to lower the CO emissions. Here is an excerpt from the quarterly emissions report:

"In summary, CO was reduced significantly by changing the boiler control strategy, increasing the Overfire Air System static air pressure and increasing the ratio of Overfire Air to Undergrate Air. The primary benefit was to increase furnace penetration by the Overfire Air and significantly improve combustion air mixing in the furnace. These improvements were limited however by the physical dimensions of the overfire air ports and corner registers, and required utilization of all fan horsepower available. The information gained has permitted us to determine the next step to take toward continued improvement while burning wood as well as bagasse. The initial changes will include restricting the opening size of the current rear wall nozzle, improving damper control, and improving the tangential windbox registers."

## 5. EVALUATION AND RECOMMENDATIONS

- 5.1 CO Limit: Consider the following arguments:

- The monitoring data submitted indicates the following:

30-day Rolling Average lb/mmBTU	Boiler A	Boiler B	Boiler C
Average	0.244	0.284	0.248
Maximum	0.329	0.346	0.304

This shows that even if the numerical limit is not increased, the maximum value for each boiler never exceeded the current numerical limit of 0.35 lb/mmBTU for a 30-day rolling average.

- Previous permitting determinations indicated that the continuous monitoring of CO would demonstrate good over all combustion efficiency of the boilers which will be lost with such a large averaging period. However, the CO limit was not a BACT limit. As the applicant pointed out, a recent BACT determination for the Wheelabrator Ridge Energy Facility (burning biomass) allowed a revision of their BACT limit to a 30-day rolling average (0.32 lb/mmBTU) due to inherent problems with the high moisture of the fuel.
- There has been little effort to develop a conditioned, dry boiler fuel that would provide a more steady state operation.
- The Okeelanta cogeneration plant was built about the same time as the Wheelabrator Ridge Energy Facility and a similar emissions levels should be expected.
- In 1997, the Department revised the original CO limit from 0.35 lb/mmBTU based on an 8-hour average to 0.35 lb/mmBTU based on a 24-hour average. At that time the plant indicated that it would be able to comply with the 24-hour standard based on available monitoring data. The applicant has provided no details as to why the plant can no longer meet a 24-hour standard.
- The supporting information submitted for this request only includes monitoring data since the plant was restarted on February 27, 1998. This data appears to include periods of excess emissions during startup, shutdown, and malfunction. Their second request would exclude these periods, lowering this data.

- High moisture content of the biomass fuels may lead to higher (and fluctuating) CO emissions. However, this was not an *unknown* factor prior to constructing these units given that bagasse generally has a moisture content of more than 50%. Also, the bagasse and wood waste fuels are stored in open, uncovered stockpiles in a county known for having a “wet” climate.
- Raising the averaging period from a 24-hour average to a 30-day rolling average would not result in an increase in annual CO emissions.

**Recommendation:** Based on the information available, I believe there is sufficient justification to revise the CO standard from a 24-hour to a 30-day rolling average. However, I do not believe there is sufficient justification to increase the numerical portion of the CO limit and doing so could be interpreted as a significant emissions increase triggering a full PSD review for CO and a corresponding ambient air modeling analysis. I recommend the revised permit condition in Attachment A. Because this may be viewed as a relaxation of an emissions limiting standard, this revision *may* require the approval of the EPA *and perhaps* a new Public Notice.

5.2 **Excess Emissions:** Consider the following arguments:

- The original permit allowed excess emissions in accordance with Rule 62-210.700, F.A.C. or up to 2 hours in any 24-hour period if due to startup, shutdown, or malfunction. In addition, the permit allowed up to 4 hours of excess emissions resulting from startup not to exceed 6 times per year.
- According to the Quarterly Excess Emission Report (1st quarter, 1999), the plant indicates that CO emissions may be reduced significantly by implementing their boiler control strategy.
- NSPS 40 CFR 60.8 states, “... Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test *nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.*”
- These boilers are subject to NSPS Subpart Da. The applicant cites NSPS rule 40 CFR 60.46a(c) as a basis for allowing periods of excess emissions. Summarizing, this rule states that PM and NO<sub>x</sub> standards apply at all times except during periods of startup, shutdown, or malfunction. This regulation goes on to state in paragraph (g) that compliance is determined by calculating the arithmetic average of all hourly emission rates for NO<sub>x</sub> for the 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction. This appears to be a reasonable way to handle CO emissions. See Attachment B for rule excerpts.
- The applicant also cites NSPS rule 40 CFR 60.47a(e) as a basis to exclude data collected during continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, but to record data during all periods of operation including periods of startup, shutdown, malfunction. This regulation goes on in paragraphs (f), (g), and (h) to provide specific details on the method of calculating the 30-day rolling average. See Attachment B for rule excerpts.
- Recent Department permits concerning BACT emissions limits for combustion turbines allow excess emissions for up to two hours in any 24-hour period and up to four hours for some modes of startup.
- The applicant requests to define startup as beginning when more than 4000 lb/hour of steam is generated and shutdown as ending when less than 4000 lb/hour of steam is generated. However, the applicant also requests to exclude periods when “off-line” without limiting the duration. This almost suggests an “idling mode” with no compliance requirements.

**Recommendation:** The NSPS regulations allow data collected during periods of startup, shutdown, and malfunction to be excluded from the determination of compliance with an emissions standard based on continuous monitoring data *regardless of whether or not in excess of a permit standard*. In my opinion, clearly defining periods of startup, shutdown, and malfunction and specifying that this data is excluded from averaging for compliance purposes would mitigate many of the applicant’s concerns regarding “excess emissions”. I would only allow excess emissions for short-term averaging periods of less than 24-hours. Allowing excess emissions for long-term averages of 24-hours or longer is not necessary because compliance is demonstrated by monitor and monitoring data for startup, shutdown, and malfunction may be excluded. I recommend the revised permit

conditions included in Attachment A. However, because the boilers are subject to BACT and NSPS emission limiting standards these changes *may* require the approval of the EPA *and perhaps* a new Public Notice.

**ATTACHMENT A**

{Revise in existing Emissions Table and include the following conditions as notes.}

1. **CO Limit:** The emissions of carbon monoxide from each boiler shall not exceed 0.35 pounds per mmBTU based on a 30-day (boiler operating days) rolling average. Compliance with this standard shall be demonstrated by continuous emissions monitoring data. The 30-day rolling average shall be determined by calculating the arithmetic average of all hourly emission rates for 30 successive boiler operating days. The 1-hour averages shall be expressed in lb/mmBTU of heat input and are calculated using at least two valid data points. Calculation of the 30-day rolling average shall consist of at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with a continuous monitoring system, the permittee shall supplement emission data with other monitoring systems approved by the EPA Administrator or the reference methods and procedures as described in 40 CFR 60.47a.

[Air Permit PSD-FL-196; 40 CFR 60.46a; and 40 CFR 60.47a]

2. **Startups, Shutdowns, and Malfunctions:** Periods of startup, shutdown and malfunction shall be defined as:
  - a. *Startup* is the commencement of operation of a boiler which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions. Periods of startup for each boiler shall end once steam generation reaches 150,000 pounds per hour not to exceed four (4) hours in any 24-hour period (day).  
[Rule 62-210.200(276), F.A.C. and Rule 62-4.070(3), F.A.C.]
  - b. *Shutdown* is the cessation of the operation of a boiler for any purpose once steam generation drops below 150,000 pounds per hour. The process of shutdown for each boiler shall not exceed four (4) hours in any 24-hour period (day).  
[Rule 62-210.200(259), F.A.C. and Rule 62-4.070(3), F.A.C.]
  - c. *Malfunction* is any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner. Malfunctions shall be limited to two (2) hours in any 24-hour period (day). Within one (1) working day of a malfunction, the permittee shall notify the regulating agencies of the date, time, description, steps to taken to minimize emissions, and corrective actions taken.  
[Rule 62-210.200(179), F.A.C. and Rule 62-4.070(3), F.A.C.]

3. **Continuous Monitoring Data:** Continuous emission monitoring data required by this permit shall be collected and recorded during all periods of operation including startup, shutdown, and malfunction, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments. Although recorded, emissions during periods of startup, shutdown and malfunction shall be *excluded* from the averaging calculations required to determine compliance with the emissions standards, subject to the definitions of startup, shutdown, and malfunction specified in this permit. For operation beyond four (4) hours of startup, four (4) hours of shutdown, or two (2) hours of malfunction in a 24-hour period, emissions data shall be recorded and included in the averaging calculations required to determine compliance with the emissions standards. The permittee shall submit to the regulating agencies a Quarterly Excess Emissions Report within 30 days of the end of each calendar quarter. The report shall identify the date, time, and description of each startup, shutdown, and malfunction resulting in excess emissions. It shall also identify any steps taken to mitigate emissions during any malfunction as well as any corrective actions taken.

*Note:* Emissions data collected during startup, shutdown, and malfunction may be excluded regardless of whether or not emissions are in excess of any standard.

[Air Permit PSD-FL-196; Rule 62-210.700, F.A.C.; 40 CFR 60.8; and 40 CFR 60.46a]

4. **Excess Emissions:** Excess emissions resulting from startup, shutdown or malfunction of a boiler shall be permitted for standards based on short-term averaging periods (shorter than 24-hour averages) as specified in this permit, providing:
  - a. The operators implement best operational practices to minimize emissions, and

- b. Excess emissions do not exceed four (4) hours for startup, four (4) hours for shutdown, nor two (2) hours for malfunction in any 24-hour period (day).

Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. Excess emissions of standards based on long-term averaging periods (24-hour averages or longer) *are not* permitted because compliance is demonstrated by continuous monitor and provisions of this permit allow exclusion of monitoring data for periods of startup, shutdown, and malfunction.

[Rule 62-210.700, F.A.C.; Rule 62-4.070(3), F.A.C.; 40 CFR 60.8; and 40 CFR 60.46a]

**ATTACHMENT B: NSPS SUBPART DA RULE EXCERPTS**

**40 CFR 60.46a Compliance Provisions**

- (c) "... The particulate matter emission standards under §60.42a and the nitrogen oxides emission standards under §60.44a apply at all times *except during periods of startup, shutdown, or malfunction.*" (emphasis added)
- (g) "... Compliance is determined by calculating the *arithmetic average of all hourly emission rates for SO<sub>2</sub> and NO<sub>x</sub> for the 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction (NO<sub>x</sub> only), or emergency conditions (SO<sub>2</sub> only).*" (emphasis added)

**40 CFR 60.47a Emission Monitoring**

- (e) "... The continuous monitoring systems under paragraphs (b), (c), and (d) of this section are operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, malfunction or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments."
- (f) "The owner or operator shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with a continuous monitoring system, the owner or operator shall supplement emission data with other monitoring systems approved by the Administrator or the reference methods and procedures as described in paragraph (h) of this section."
- (g) "The 1-hour averages required under paragraph §60.13(h) are expressed in ng/J (lbs/million Btu) heat input and used to calculate the average emission rates under §60.46a. The 1-hour averages are calculated using the data points required under §60.13(b). At least two data points must be used to calculate the 1-hour averages."
- (h) "When it becomes necessary to supplement continuous monitoring system data to meet the minimum data requirements in paragraph (f) of this section, the owner or operator shall use the reference methods and procedures as specified in this paragraph. Acceptable alternative methods and procedures are given in paragraph (j) of this section."

Filename: OKPLP.DOC



February 17, 1999

**RECEIVED**

FEB 22 1999

BUREAU OF  
AIR REGULATION

Al Linero, P.E.  
Division Of Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Fl. 32399-2400

Subject: Okeelanta Cogeneration Facilities' Excess Emissions.

AL  
Dear Mr. Linero:

For your information a copy of the Okeelanta Cogeneration Facilities' recently submitted excess emissions report is attached. We thought this report would provide you additional information in reviewing facilities' request to modify its permit to increase the emission standard for CO, Periods of Startup, Shutdown etc. This agency has already submitted its comment on the proposed changes.

If you have any question, please call us at S.C. 273-3070 or at (561)355-3070. Thanks.

Sincerely,

For the Division Director  
Environmental Health and Engineering

A handwritten signature in cursive script, appearing to read "Ajaya K. Satyal".

Ajaya K. Satyal, Environmental Manager  
Air Pollution Control Section

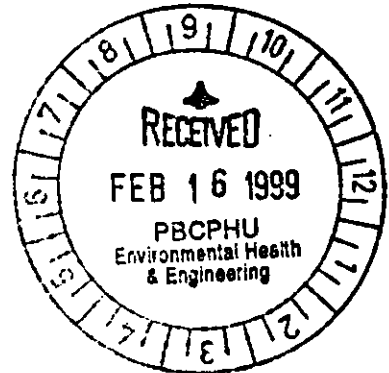
C.c. Mike Harley, P.E., DARM, FDEP.

**OKEELANTA COGENERATION FACILITY**

**P.O. Box 9  
South Bay, Florida 33493  
(561) 993-1010  
(561) 992-7744 (fax)**

February 11, 1999

State of Florida  
Palm Beach County Health Department  
Air Pollution Control Section  
901 Evernia Street  
West Palm Beach, Florida 33402-0029



Attn: Ajaya K. Satyal  
Environmental Manager

Re: Okeelanta Cogeneration Facility  
Excess Emission Report

Dear Mr. Satyal:

Please find enclosed the excess emission reports for the Okeelanta Cogeneration Facility from November 29, 1998 to December 30, 1998. If you have any questions please contact me at (561) 993-1003.

Sincerely,

A handwritten signature in black ink, appearing to read "J. M. Meriwether".

James M. Meriwether  
Environmental Manager

cc: Ricardo Lima  
Gus Cepero  
Rodney Williams



Excess Emissions Notification

Okeelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010. FAX (561) 996-6596

Date of Excess Emission: 11/28/98 Boiler A      Boiler B X Boiler C     

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>    </u>	0.05 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
N0x	<u>    </u>	0.15 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
CO	<u>    </u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>    </u>
Opacity	<u>X</u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>35%</u>

Block Hour(s) of Excess Emissions: 02:24-02:30

Hour Returned to Permit Limit: 02:31

Cause of Excess Emissions: Clinkers on furnace grate, upset conditions at the sugar mill.

Action Taken to Correct Excess Emissions: Removed clinker from grate, stabilized boiler.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136 Nights and Weekends - (561) 582-5666 Fax - (561) 355-2442

Was Palm Beach County Notified: Yes X No      Person Notified: Ajaya K. Satyal

Date of Notification: 1/22/99 Time of Notification:      Faxed: Yes      No X

Reported By: James M. Meriwether

Excess Emissions Notification

Okeelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 11/29/98 Boiler A  Boiler B  Boiler C

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<input type="checkbox"/>	0.05 lb/MMBTU	30 Day Roll.Avg.	<input type="checkbox"/>
NO <sub>x</sub>	<input type="checkbox"/>	0.15 lb/MMBTU	30 Day Roll.Avg.	<input type="checkbox"/>
CO	<input type="checkbox"/>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<input type="checkbox"/>
Opacity	<input checked="" type="checkbox"/>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>43%</u>

Block Hour(s) of Excess Emissions: 07:54 to 08:00

Hour Returned to Permit Limit: 08:01

Cause of Excess Emissions: All three boilers tripped due to boiler logic problem.

Action Taken to Correct Excess Emissions: Restarted boilers, resolved logic problem.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136 Nights and Weekends - (561) 582-5666 Fax - (561) 355-2442

Was Palm Beach County Notified: Yes  No  Person Notified: Ajaya K. Satyal

Date of Notification: 1/22/99 Time of Notification: \_\_\_\_\_ Faxed: Yes  No

Reported By: James M. Meriwether

*Excess Emissions Notification*

Okcelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/1/98 Boiler A      Boiler B      Boiler C X

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>    </u>	0.05 lb/MMBTU	30 Day Roll Avg.	<u>    </u>
NO <sub>x</sub>	<u>    </u>	0.15 lb/MMBTU	30 Day Roll Avg.	<u>    </u>
CO	<u>X</u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>.404</u>
Opacity	<u>    </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>    </u>

Block Hour(s) of Excess Emissions: 00:00 - 23:59

Hour Returned to Permit Limit:     

Cause of Excess Emissions: #1 Fuel distribution chain jumped the sprocket, bottom ash collecting conveyor shut down to remove metal debris.

Action Taken to Correct Excess Emissions: Re-aligned fuel distribution chain, removed metal debris from bottom ash collecting conveyor.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136 Nights and Weekends - (561) 582-5666 Fax - (561) 355-2442

Was Palm Beach County Notified: Yes X No      Person Notified: Ajaya K. Satyal

Date of Notification: 1/22/99 Time of Notification:      Faxed: Yes      No X

Reported By: James M. Meriwether

Excess Emissions Notification

Okceclanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/17/98 Boiler A      Boiler B X Boiler C     

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>    </u>	0.05 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
NO <sub>x</sub>	<u>    </u>	0.15 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
CO	<u>X</u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>.467</u>
Opacity	<u>    </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>    </u>

Block Hour(s) of Excess Emissions: 00:00 to 23:59

Hour Returned to Permit Limit:     

Cause of Excess Emissions: Shut down bottom ash collecting conveyor to remove metal debris. Generator breaker tripped.

Action Taken to Correct Excess Emissions: Removed metal debris from bottom ash collecting conveyor. Started repairs on generator breaker.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes xNo      Person Notified: Ajaya K. Satyal

Date of Notification: 1/22/98 Time of Notification:      Faxed: Yes      No x

Reported By: James M. Meriwether

Excess Emissions Notification

Okcelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010. FAX (561) 996-6596

Date of Excess Emission: 12/19/98 Boiler A      Boiler B      Boiler C   X  

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>    </u>	0.05 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
NO <sub>x</sub>	<u>    </u>	0.15 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
CO	<u>  X  </u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>  .356  </u>
Opacity	<u>    </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>    </u>

Block Hour(s) of Excess Emissions: 00:00 to 23:59

Hour Returned to Permit Limit:     

Cause of Excess Emissions: I.D. fan damper problems, fuel feeders plugged, fuel feeders tripped.

Action Taken to Correct Excess Emissions: Adjusted I.D. fan damper, unplugged and restarted fuel feeders.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes x No      Person Notified: Ajaya K. Satyal

Date of Notification: 1/22/99 Time of Notification:      Faxed: Yes      No x

Reported By: James M. Meriwether

*Excess Emissions Notification*

Okceclanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/24/98 Boiler A        Boiler B X Boiler C       

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>      </u>	0.05 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
NO <sub>x</sub>	<u>      </u>	0.15 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
CO	<u>X</u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>.703</u>
Opacity	<u>      </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>      </u>

Block Hour(s) of Excess Emissions: 00:00 to 23:59

Hour Returned to Permit Limit:       

Cause of Excess Emissions: Plant shutdown for maintenance outage.

Action Taken to Correct Excess Emissions:       

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136 Nights and Weekends - (561) 582-5666 Fax - (561) 355-2442

Was Palm Beach County Notified: Yes X No        Person Notified: Ajaya K. Satyal

Date of Notification: 1/22/99 Time of Notification:        Faxed: Yes        No X

Reported By: James M. Meriwether

Excess Emissions Notification

Okceclanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010. FAX (561) 996-6596

Date of Excess Emission: 12/25/98 Boiler A X Boiler B \_\_\_\_\_ Boiler C \_\_\_\_\_

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	_____	0.05 lb/MMBTU	30 Day Roll.Avg.	_____
NO <sub>x</sub>	_____	0.15 lb/MMBTU	30 Day Roll.Avg.	_____
CO	_____	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	_____
Opacity	<u>X</u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>28%, 54%, 71%</u>

Block Hour(s) of Excess Emissions: 23:18-23:24, 23:48-23:54, 23:54-00:00.

Hour Returned to Permit Limit: 00:06

Cause of Excess Emissions: Startup conditions, burning fuel oil.

Action Taken to Correct Excess Emissions: Started feeding solid fuel, stabilized boiler.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136 Nights and Weekends - (561) 582-5666 Fax - (561) 355-2442

Was Palm Beach County Notified: Yes xNo \_\_\_\_\_ Person Notified: Ajaya K. Satyal

Date of Notification: 1/22/99 Time of Notification: \_\_\_\_\_ Faxed: Yes \_\_\_\_\_ NoX

Reported By: James M. Meriwether

Excess Emissions Notification

Okcelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/25/98 Boiler A      Boiler B X Boiler C     

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>    </u>	0.05 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
NO <sub>x</sub>	<u>    </u>	0.15 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
CO	<u>X</u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>2.596</u>
Opacity	<u>    </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>    </u>

Block Hour(s) of Excess Emissions: 00:00-23:59

Hour Returned to Permit Limit:     

Cause of Excess Emissions: Turbine tripped due to problems with synchronizing turning gear, shutdown boiler, startup boiler, boiler tripped due to low drum level, boiler tripped due to problem with wood unloading system.

Action Taken to Correct Excess Emissions: Resolved problems and restarted boiler.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes X No      Person Notified: Ajaya K. Satyal

Date of Notification: 1/22/99 Time of Notification:      Faxed: Yes      Nox     

Reported By: James M. Meriwether



Excess Emissions Notification

Okcelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/25/98 Boiler A        Boiler B X Boiler C       

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>      </u>	0.05 lb/MMBTU	30 Day Roll.Avg.	<u>      </u>
NO <sub>x</sub>	<u>      </u>	0.15 lb/MMBTU	30 Day Roll.Avg.	<u>      </u>
CO	<u>      </u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>      </u>
Opacity	<u>X</u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	37%, 46%, 39%, 29%, 31%, 24%.

Block Hour(s) of Excess Emissions: 02:30-02:36, 18:36-19:00, 19:12-19:18.

Hour Returned to Permit Limit:       

Cause of Excess Emissions: Turbine tripped due to problems with synchronizing  
turing gear, shutdown boiler, restarted boiler, boiler tripped due to low  
drum level, boiler tripped due to problem with wood unloading system.

Action Taken to Correct Excess Emissions: Resolved problems and restarted boiler.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes x No     Person Notified: Ajaya K. Satyal

Date of Notification: 1/22/99 Time of Notification:        Faxed: Yes     No x

Reported By: James M. Meriwether

Excess Emissions Notification

Okeelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/25/98      Boiler A             Boiler B             Boiler C   X  

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>      </u>	0.05 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
NO <sub>x</sub>	<u>      </u>	0.15 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
CO	<u>      </u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>      </u>
Opacity	<u>  X  </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>  54%  </u>

Block Hour(s) of Excess Emissions: 22:06-22:12

Hour Returned to Permit Limit: 22:13

Cause of Excess Emissions: Startup conditions.

Action Taken to Correct Excess Emissions: Brought boiler on-line.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136      Nights and Weekends - (561) 582-5666      Fax - (561) 355-2442

Was Palm Beach County Notified: Yes x No          Person Notified: Ajaya K. Satyal

Date of Notification: 1/22/99      Time of Notification:                 Faxed: Yes     No X

Reported By: James M. Meriwether

Excess Emissions Notification

Okeelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/26/98 Boiler A  Boiler B  Boiler C

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<input type="checkbox"/>	0.05 lb/MMBTU	30 Day Roll Avg.	<input type="checkbox"/>
NO <sub>x</sub>	<input type="checkbox"/>	0.15 lb/MMBTU	30 Day Roll Avg.	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>.385</u>
Opacity	<input type="checkbox"/>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<input type="checkbox"/>

Block Hour(s) of Excess Emissions: 00:00 - 23:59

Hour Returned to Permit Limit: \_\_\_\_\_

Cause of Excess Emissions: Numerous plugged fuel feeders during day.

Action Taken to Correct Excess Emissions: Unplugged fuel feeders

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136 Nights and Weekends - (561) 582-5666 Fax - (561) 355-2442

Was Palm Beach County Notified: Yes  No  Person Notified: Ajaya K. Satyal

Date of Notification: 2/11/99 Time of Notification: \_\_\_\_\_ Faxed: Yes  No

Reported By: James M. Meriwether

Excess Emissions Notification

Okeelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010. FAX (561) 996-6596

Date of Excess Emission: 12/26/98 Boiler A X Boiler B        Boiler C       

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>      </u>	0.05 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
NO <sub>x</sub>	<u>      </u>	0.15 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
CO	<u>      </u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>      </u>
Opacity	<u>  X  </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>  80% to 83%  </u>

Block Hour(s) of Excess Emissions: 00:00 to 00:36

Hour Returned to Permit Limit: 00:37

Cause of Excess Emissions: Startup conditions.

Action Taken to Correct Excess Emissions: Brought boiler online.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes x No        Person Notified: Ajaya K. Satyal

Date of Notification: 2/11/99 Time of Notification:        Faxed: Yes        No x

Reported By: James M. Meriwether

*Excess Emissions Notification*

Okceclanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/26/98 Boiler A        Boiler B X Boiler C       

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>      </u>	0.05 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
NO <sub>x</sub>	<u>      </u>	0.15 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
CO	<u>X</u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>.352</u>
Opacity	<u>      </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>      </u>

Block Hour(s) of Excess Emissions: 00:00 to 23:59

Hour Returned to Permit Limit:       

Cause of Excess Emissions: Broken shear pin on #1 Distribution Fuel Conveyor.  
Boiler fuel feed system tripped.

Action Taken to Correct Excess Emissions: Repaired broken shear pin and restarted boiler.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes X No        Person Notified: Ajaya K. Satyal

Date of Notification: 2/11/99 Time of Notification:        Faxed: Yes        No X

Reported By: James M. Meriwether

Excess Emissions Notification

Okcelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/26/98 Boiler A        Boiler B        Boiler C   X  

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>      </u>	0.05 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
NO <sub>x</sub>	<u>      </u>	0.15 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
CO	<u>  X  </u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>  .383  </u>
Opacity	<u>      </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>      </u>

Block Hour(s) of Excess Emissions: 00:00 to 23:59

Hour Returned to Permit Limit:       

Cause of Excess Emissions: Broken shear pin on #1 Distribution Fuel Conveyor.

Boiler fuel feed system tripped.

Action Taken to Correct Excess Emissions: Repaired broken shear pin and restarted boiler.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes   X   No           Person Notified: Ajaya K. Satyal

Date of Notification:   2/11/99      Time of Notification:           Faxed: Yes        No   X  

Reported By:   James M. Meriwether

Excess Emissions Notification

Okeclanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010. FAX (561) 996-6596

Date of Excess Emission: 12/27/98 Boiler A        Boiler B        Boiler C X

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>      </u>	0.05 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
NO <sub>x</sub>	<u>      </u>	0.15 lb/MMBTU	30 Day Roll Avg.	<u>      </u>
CO	<u>X</u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>.537</u>
Opacity	<u>      </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>      </u>

Block Hour(s) of Excess Emissions: 00:00 to 23:59

Hour Returned to Permit Limit:       

Cause of Excess Emissions: Boiler fuel system tripped due to recycle conveyor head misalignment.

Action Taken to Correct Excess Emissions: Repaired recycle conveyor and resumed operations.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes X No        Person Notified: Ajaya K. Satyal

Date of Notification: 2/11/99 Time of Notification:        Faxed: Yes        No X

Reported By: James M. Meriwether

Excess Emissions Notification

Okeelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/28/98 Boiler A  Boiler B  Boiler C

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<input type="checkbox"/>	0.05 lb/MMBTU	30 Day Roll.Avg.	<input type="checkbox"/>
NO <sub>x</sub>	<input type="checkbox"/>	0.15 lb/MMBTU	30 Day Roll.Avg.	<input type="checkbox"/>
CO	<input type="checkbox"/>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<input type="checkbox"/>
Opacity	<input checked="" type="checkbox"/>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>23%, 28%</u>

Block Hour(s) of Excess Emissions: 19:54-20:00, 20:06-20:12

Hour Returned to Permit Limit: \_\_\_\_\_

Cause of Excess Emissions: Bottom ash collecting conveyor tripped due to broken chain. Plugged fuel feeders.

Action Taken to Correct Excess Emissions: Repaired bottom ash chain and unplugged fuel feeders.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136 Nights and Weekends - (561) 582-5666 Fax - (561) 355-2442

Was Palm Beach County Notified: Yes  No  Person Notified: Ajaya K. Satyal

Date of Notification: 2/11/99 Time of Notification: \_\_\_\_\_ Faxed: Yes  No

Reported By: James M. Meriwether



Excess Emissions Notification

Okeclanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010. FAX (561) 996-6596

Date of Excess Emission: 12/28/98 Boiler A        Boiler B        Boiler C X

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>      </u>	0.05 lb/MMBTU	30 Day Roll. Avg.	<u>      </u>
NO <sub>x</sub>	<u>      </u>	0.15 lb/MMBTU	30 Day Roll. Avg.	<u>      </u>
CO	<u>X</u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>.448</u>
Opacity	<u>      </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>      </u>

Block Hour(s) of Excess Emissions: 00:00 to 23:59

Hour Returned to Permit Limit:       

Cause of Excess Emissions: Bagasse reclaimer tripped due to speed fault. Bottom ash collecting conveyor tripped due to broken chain.

Action Taken to Correct Excess Emissions: Reset and restarted bagasse reclaimer. Repaired bottom ash chain.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes XNo        Person Notified: Ajaya K. Satyal

Date of Notification: 2/11/99 Time of Notification:        Faxed: Yes        No X

Reported By: James M. Meriwether

*Excess Emissions Notification*

Okcelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/29/98 Boiler A X Boiler B      Boiler C     

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>    </u>	0.05 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
NO <sub>x</sub>	<u>    </u>	0.15 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
CO	<u>    </u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>    </u>
Opacity	<u>X</u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>21%, 42%</u>

Block Hour(s) of Excess Emissions: 13:12-13:18, 18:36-18:42

Hour Returned to Permit Limit:     

Cause of Excess Emissions: Load swing.

Action Taken to Correct Excess Emissions: Stabilized boiler.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136 Nights and Weekends - (561) 582-5666 Fax - (561) 355-2442

Was Palm Beach County Notified: Yes X No      Person Notified: Ajaya K. Satyal

Date of Notification: 2/11/99 Time of Notification:      Faxed: Yes      No X

Reported By: James M. Meriwether

Excess Emissions Notification

Okcelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/29/98 Boiler A      Boiler B X Boiler C     

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>    </u>	0.05 lb/MMBTU	30 Day Roll Avg.	<u>    </u>
NO <sub>x</sub>	<u>    </u>	0.15 lb/MMBTU	30 Day Roll Avg.	<u>    </u>
CO	<u>X</u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>.454</u>
Opacity	<u>    </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>    </u>

Block Hour(s) of Excess Emissions: 00:00 to 23:59

Hour Returned to Permit Limit:     

Cause of Excess Emissions: Bottom ash system plugged, doors open to work on system.

Action Taken to Correct Excess Emissions: Unplugged system, resumed operations.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes X No      Person Notified: Ajaya K. Satyal

Date of Notification: 2/11/99 Time of Notification:      Faxed: Yes      No X

Reported By: James M. Meriwether

Excess Emissions Notification

Okcelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/29/98      Boiler A             Boiler B             Boiler C   X  

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>      </u>	0.05 lb/MMBTU	30 Day Roll.Avg.	<u>      </u>
NO <sub>x</sub>	<u>      </u>	0.15 lb/MMBTU	30 Day Roll.Avg.	<u>      </u>
CO	<u>  X  </u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>  .552  </u>
Opacity	<u>      </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>      </u>

Block Hour(s) of Excess Emissions:   00:00 to 23:59  

Hour Returned to Permit Limit:       

Cause of Excess Emissions:   Bottom ash collecting conveyor tripped due to broken chain.  

Action Taken to Correct Excess Emissions:   Repaired bottom ash chain and resumed operations.  

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136      Nights and Weekends - (561) 582-5666      Fax - (561) 355-2442

Was Palm Beach County Notified: Yes X No         Person Notified:   Ajaya K. Satyal  

Date of Notification:   2/11/99        Time of Notification:             Faxed: Yes    No   X  

Reported By:   James M. Meriwether

Excess Emissions Notification

Okeclanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010. FAX (561) 996-6596

Date of Excess Emission: 12/30/98 Boiler A  Boiler B  Boiler C

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<input type="checkbox"/>	0.05 lb/MMBTU	30 Day Roll Avg.	<input type="checkbox"/>
NO <sub>x</sub>	<input type="checkbox"/>	0.15 lb/MMBTU	30 Day Roll Avg.	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>.484</u>
Opacity	<input type="checkbox"/>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<input type="checkbox"/>

Block Hour(s) of Excess Emissions: 00:00 to 23:59

Hour Returned to Permit Limit: \_\_\_\_\_

Cause of Excess Emissions: Bottom ash collecting conveyor tripped due to broken chain.

Action Taken to Correct Excess Emissions: Repaired bottom ash conveyor and resumed operations.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes  No  Person Notified: Ajaya K. Satyal

Date of Notification: 2/11/99 Time of Notification: \_\_\_\_\_ Faxed: Yes  No

Reported By: James M. Meriwether

Excess Emissions Notification

Okeelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010, FAX (561) 996-6596

Date of Excess Emission: 12/30/98 Boiler A X Boiler B \_\_\_\_\_ Boiler C \_\_\_\_\_

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	_____	0.05 lb/MMBTU	30 Day Roll Avg.	_____
NO <sub>x</sub>	_____	0.15 lb/MMBTU	30 Day Roll Avg.	_____
CO	_____	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	_____
Opacity	<u>X</u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>40%</u>

Block Hour(s) of Excess Emissions: 04:06 to 04:12

Hour Returned to Permit Limit: 04:13

Cause of Excess Emissions: Load swing.

Action Taken to Correct Excess Emissions: Stabilized boiler and resumed operations.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136 Nights and Weekends - (561) 582-5666 Fax - (561) 355-2442

Was Palm Beach County Notified: Yes X No \_\_\_\_\_ Person Notified: Ajaya K. Satyal

Date of Notification: 2/11/99 Time of Notification: \_\_\_\_\_ Faxed: Yes \_\_\_\_\_ No X

Reported By: James M. Meriwether

Excess Emissions Notification

Okeelanta Cogeneration Facility  
P.O. Box 9  
South Bay, Florida 33493  
Main Office (561) 993-1010. FAX (561) 996-6596

Date of Excess Emission: 12/30/98 Boiler A      Boiler B      Boiler C X

EMISSION INFORMATION

<u>Emission Parameter</u>	<u>Check One</u>	<u>Emission Limit</u>	<u>Compliance Basis</u>	<u>Actual Emissions</u>
SO <sub>2</sub>	<u>    </u>	0.05 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
NO <sub>x</sub>	<u>    </u>	0.15 lb/MMBTU	30 Day Roll.Avg.	<u>    </u>
CO	<u>X</u>	0.35 lb/MMBTU 250.3 lb/hour	24 Hour Avg.	<u>.427</u>
Opacity	<u>    </u>	20 % 27 %	6 Minute Avg. 6 Minute in 1 hour period	<u>    </u>

Block Hour(s) of Excess Emissions: 00:00 to 23:59

Hour Returned to Permit Limit:     

Cause of Excess Emissions: Bottom ash collecting conveyor tripped due to broken chain.  
Boiler shutdown for tube leak repairs.

Action Taken to Correct Excess Emissions: Repaired bottom ash chain and tube leak.

Palm Beach County Health Department - Air Pollution Control Section  
Day - (561) 355-3136    Nights and Weekends - (561) 582-5666    Fax - (561) 355-2442

Was Palm Beach County Notified: Yes X No      Person Notified: Ajaya K. Satyal

Date of Notification: 2/11/99 Time of Notification:      Faxed: Yes      No X

Reported By: James M. Meriwether



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

February 5, 1999

Mr. John Bunyak, Chief  
Policy, Planning & Permit Review Section  
NPS-Air Quality Division  
Post Office Box 25287  
Denver, Colorado 80225

Re: Okeelanta Power, LP, 0990332-010-AC, PSD-FL-<sup>1916F</sup>~~262~~  
Permit Modification of CO Emission Limit

Dear Mr. Bunyak:

Enclosed for your review and comment is a request from Okeelanta Power, LP, for an air construction permit modification to relax the CO emission limit for their cogeneration facility from 0.35 lb/MMBtu to 0.50 lb/MMBtu (daily average) on the basis of variability of moisture in the biomass fuel.

Please send your comments to me at the letterhead address or fax them to my attention at (850)922-6979. If you have any questions, please contact John Reynolds at (850)921-9536.

Sincerely,

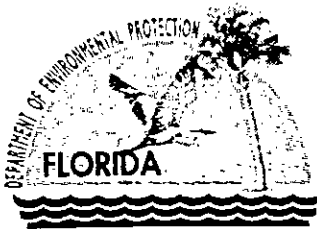
A. A. Linero, P.E.  
Administrator  
New Source Review Section

AAL/kt

enclosures

cc: J. Reynolds, BAR





Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

February 5, 1999

Mr. Gregg Worley, Section Chief  
Air, Radiation Technology Branch  
Preconstruction/HAP Section  
U.S. EPA - Region IV  
61 Forsyth Street  
Atlanta, Georgia 30303

Re: Okeelanta Power, L.P., 0990332-010-AC, PSD-FDL-<sup>1918 F</sup>~~262~~  
Permit Modification of CO Emission Limit

Dear Mr. Worley:

Enclosed for your review and comment is a request from Okeelanta Power, L.P., for an air construction permit modification to relax the CO emission limit for their cogen facility from 0.35 lb/MMBtu to 0.50 lb/MMBtu (daily average) on the basis of variability of moisture in the biomass fuel.

Please send your comments to me at the letterhead address or fax them to my attention at (850)922-6979. If you have any questions, please contact John Reynolds at (850)921-9536.

Sincerely,

A. A. Linero, P.E.  
Administrator  
New Source Review Section

AAL/kt

enclosures

cc: J. Reynolds, BAR

**RECEIVED**

FFR 02 1999

**BUREAU OF  
AIR REGULATION**

**OKEELANTA COGENERATION FACILITY  
P.O. Box 9  
South Bay, Florida 33493  
(561) 993-1010  
(561) 992-7744 (fax)**

January 29, 1999

State of Florida  
Department of Environmental Protection  
Division of Air Resources Management  
Twin Towers Office Building  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400

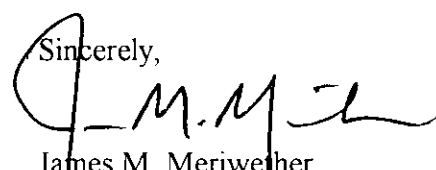
Attn: A.A. Linero, P.E.  
Administrator  
New Source Review Section

Re: Okeelanta Power L.P. *pid*  
AIRS No: 0990332-006-AC, PSD-FL-196 *262*

*196F*

Dear Mr. Linero:

Please find enclosed check #8282 in the amount of \$2500 to cover the additional permit modification processing fee requested in your December 18, 1998 letter to David Buff of Golder Associates. Although it is not clear that PSD review is applicable in this case we wish to proceed with processing of the permit modification. If you have any questions please contact me at (561) 993-1003.

Sincerely,  
  
James M. Meriwether  
Environmental Manager

cc: Ricardo Lima  
Rodney Williams

FLORIDA CRYSTALS CORPORATION  
316 ROYAL POINCIANA PLAZA  
PALM BEACH, FLORIDA 33480-4099

**FIRST UNION** First Union National  
of Florida  
PENSACOLA, FL 32634

63-1012  
632

NO. 008282

DATE 01/28/99

8232

\$

AMOUNT  
\*\*\*\*\*2500.00

PAY

TWO THOUSAND FIVE HUNDRED AND 00/100

*Over Heaven*  
*Ed J. [unclear]*  
DOLLARS

TO  
THE  
ORDER  
OF

THE DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
SOUTH DISTRICT  
2295 VICTORIA AVENUE  
FORT MEYERS FL 33902-2549

⑈008282⑈ ⑆063210125⑆ 2079940004247⑈



January 4, 1999

Al Linero, PE, Administrator  
New Source Review Section, Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**RECEIVED**

JAN 08 1999

**BUREAU OF  
AIR REGULATION**

**Re: Comments on Requested CO Emission Limit Modification Dated 12-14-98  
Okeelanta Power Limited Partnership (OkPLP) Cogeneration Facility  
Permit No. 099-0332-006-AC (PSD-FL-196)**

Dear Mr. Linero:

Recently, the OkPLP submitted a request to increase the CO emissions limit for the cogeneration boilers from 0.35 lb/mmBTU based on a 24-hour average to 0.50 lb/mmBTU based on a 30-day rolling average. The Health Department offers the following comments on this request:

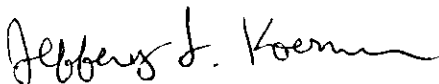
1. The CO emissions limit was already revised in 1997 from 0.35 lb/mmBTU based on an 8-hour average to 0.35 lb/mmBTU based on a 24-hour average. The Health Department resisted this modification believing that the CO standard was originally included in the permit as a parameter representing combustion efficiency and therefore "good combustion practices". We maintained that increasing the standard to a 24-hour basis weakened the effectiveness of using CO as a measure of "good combustion". The original application clearly indicated that these "state-of-the-art" boilers would have little problem meeting the initial emissions limit. Increasing both the numerical limit and the averaging time will further dilute any remaining meaning to the CO standard.
2. OkPLP states that the modification is necessary because of "uncontrollable moisture feed". The Health Department concedes that high moisture in the biomass feed material may contribute to fluctuating, higher CO emissions. However, this was a well known fact going into this project. It rains in Florida and it certainly rains in western Palm Beach County. This resulting problem with fuel combustion has been known to the sugar mill operators for at least 50 years. Also, the Health Department does not concede that the moisture content is "uncontrollable". We do agree that there has been no effort on behalf of OkPLP to produce a conditioned, dry fuel.
3. OkPLP states that BACT for a similar facility constructed at about the same time was set at 0.32 lb/mmBTU based on a 24-hour average. Given this information, the Health Department fails to understand the request to increase OkPLP's numerical portion of the limit from 0.35 lb/mmBTU to 0.50 lb/mmBTU. Although the CO standard for OkPLP was not established through a BACT determination, it seems reasonable to expect similar emission rates for similar sized equipment burning biomass and utilizing "good combustion practices" to minimize emissions. The requested increase is more than 50% above the emission limit for the similar BACT facility.
4. As supporting information to increase the CO limit, OkPLP provides CEM data from 2-27-98 to 10-22-98 clearly indicating problems with meeting the current CO standard. The Health Department has the following questions regarding this data:
  - Were "good combustion practices" used to control CO emissions during this period?
  - Did other equipment problems lead to higher CO emissions?
  - Did OkPLP investigate other methods to control CO emissions?
  - Did OkPLP attempt to condition and dry portions of the biomass for blending with high moisture biomass during wet periods?
  - Would burning a small amount of fuel oil help control CO deviations when burning "wet" biomass?
  - OkPLP has CEM records for CO emissions for the period of operation prior to 2-27-98. Why weren't these records included in the analysis?

- If compliance with the 0.35 lb CO/mmBTU limit is a problem strictly related to high moisture fuel, why didn't OkPLP make this request back in 1997?
  - Could the high CO emissions be a result of a steady decline in the performance of the boiler and other related equipment?
5. OkPLP's rationale for selecting 0.50 lb/mmBTU as the new limit is to provide a "greater margin of safety". The data provided indicates that the facility would be able to comply with 30-day rolling average of 0.35 lb CO/mmBTU. So, the term "safety" must mean safety from an enforcement action.
  6. The cogeneration plants originally showed a net decrease in all emissions because the new boilers were so efficient and the old mill boilers would be shut down. Please remember that DEP has granted OkPLP several extensions of the deadline to shut down the old mill boilers. The cogeneration plants are now able to operate simultaneously with the mill boilers through the year 2000.
  7. OkPLP cites Rule 62-212.500(2)(d)5., F.A.C., Relaxation of Restrictions on Pollutant Emitting Capacity, as the authority to increase the CO limit without triggering PSD. The Health Department believes this interpretation to be incorrect. It seems that allowing this emissions limit increase without a PSD review circumvents the BACT program and suggests that limits in federally enforceable permits are simply adjusted if a facility has difficulty meeting design specifications. The Health Department requests that DEP interpret this rule with regard to the proposed modification.
  8. OkPLP requests that the permitted conditions regarding excess emissions be expanded. This change would affect all emissions standards. The Health Department believes the conditions regarding excess emissions should not be expanded, but instead deleted. It is our understanding that Florida does not have the authority to "allow" emissions in excess of a standard resulting from a federally delegated program. Because the emission limiting standards were established in a PSD permit, emissions in excess of a standard should only be permitted if specifically allowed under the PSD program (or NSPS if resulting from an NSPS standard).

There have been many problems with the cogeneration plants including boilers not performing to design specifications, biomass fuel feeding problems, malfunctioning control equipment, and premature equipment failure. For example, the plates in the Electrostatic Precipitators (ESPs) have warped and become fouled. They are not providing the control efficiency that was originally built into the design. These plates were supposed to last the life of the boilers. The Health Department has witnessed a steady decline in the performance and operation of this cogeneration plant. The requested modifications appear questionable.

Sincerely,

For the Division Director  
Environmental Health and Engineering



Jeffery F. Koerner, PE  
Air Pollution Control Section

Phone: (561) 355-~~4549~~<sub>3136</sub> FAX: (561) 355-2442

cc: J. Reynolds, BARR

Filename: CO\_OkPLP.DOC



# Department of Environmental Protection

Lawton Chiles  
Governor

Virginia B. Wetherell  
Secretary

December 18, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David A. Buff, P.E.  
Golder Associates, Inc.  
6241 Northwest 23rd Street, Suite 500  
Gainesville, Florida 32653-1500

Re: Okeelanta Power, L.P. - AIRS No. 0990332-006-AC, PSD-FL-196<sup>010</sup> <sup>262</sup>

Dear Mr. Buff:

0990332-010-AC

The Bureau of Air Regulation received your request for a modification to an air construction permit for the above-referenced facility. On the basis of relaxation of a permit limit that would result in a significant emissions increase when current actuals are compared to future allowable emissions, it appears that PSD review will apply. Therefore, before we can begin processing your request, an additional processing fee of \$2500 is required pursuant to Rule 62-4.050(4)(a)2.a., F.A.C.

If you have any questions regarding this letter, please call John Reynolds at (850)921-9536.

Sincerely,

A. A. Linero, P.E.  
Administrator  
New Source Review Section

AAL/kt

cc: J. Reynolds, BAR

Z 333 612 574

US Postal Service  
**Receipt for Certified Mail**

No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

Sent to <i>David Buff</i>	
Street & Number <i>Golder</i>	
Post Office, State, & ZIP Code <i>Gainesville FL</i>	
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 <i>12-18-98</i>	
<i>0990332-006</i> <i>PSD-196</i>	

PS Form 3800, April 1995

<p><b>SENDER:</b></p> <ul style="list-style-type: none"> <li>Complete items 1 and/or 2 for additional services.</li> <li>Complete items 3, 4a, and 4b.</li> <li>Print your name and address on the reverse of this form so that we can return this card to you.</li> <li>Attach this form to the front of the mailpiece, or on the back if space does not permit.</li> <li>Write "Return Receipt Requested" on the mailpiece below the article number.</li> <li>The Return Receipt will show to whom the article was delivered and the date delivered.</li> </ul>	<p>I also wish to receive the following services (for an extra fee):</p> <p>1. <input type="checkbox"/> Addressee's Address</p> <p>2. <input type="checkbox"/> Restricted Delivery</p> <p>Consult postmaster for fee.</p>
	<p>3. Article Addressed to: <i>MR. David A. Buff P.E.</i> <i>Golder Assoc.</i> <i>6241 NW 23 St. Suite 500</i> <i>Gainesville, FL 32653-1500</i></p>
<p>5. Received By: (Print Name) <i>[Signature]</i></p>	<p>8. Addressee's Address (Only if requested and fee is paid)</p>
<p>6. Signature: (Addressee or Agent) <i>X Mike [Signature]</i></p>	

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500  
Gainesville, FL 32653-1500  
Telephone (352) 336-5600  
Fax (352) 336-6603

December 14, 1998

**RECEIVED**

DEC 15 1998

**BUREAU OF  
AIR REGULATION**



9837564A/01

Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Attention: Mr. A.A. Linero, P.E., Administrator, New Source Review Section

RE: Permit No. 0990332-006-AC (PSD-FL-196) <sup>010</sup> ~~196~~ 262 196 F  
Okelanta Power Limited Partnership (OkPLP) Cogeneration Facility  
Permit Modification of CO Emission Limit

Dear Mr. Linero:

OkPLP received a modification to its air construction permit in 1997 which approved, among other provisions, a change in the averaging time associated with the carbon monoxide (CO) emission limit for the three boilers located at the facility. The CO emission limit was revised from 0.35 lb/MMBtu based on an 8-hour average, to 0.35 lb/MMBtu based on a 24-hour averaging time.

Since obtaining this permit revision in October 1997, additional operating data has been obtained from the OkPLP facility boilers. The facility was under an extended shutdown prior to February 27, 1998, at which time boiler operations re-commenced. CO data taken from the continuous monitors on the three boilers (Boilers A, B and C) for the period February 27 through October 22, 1998, are attached as Appendix A. Shown in the tables is each 24-hour average CO emission rate for each day in which the boiler operated 18 hours or more. Also shown is the calculated 30-day rolling average. During the period February 27 through April 2, bagasse was the only biomass fired in the boilers. From April 2 through October 22, biomass consisting of a combination of wood waste and bagasse was fired in the boilers.

Based on the additional operational data and continuous CO emissions data from the OkPLP facility boilers, OkPLP is requesting a revised CO emission limit for all fuels of 0.5 lb/MMBtu based on a 30-day rolling average.

The requested CO limit for OkPLP is consistent with the basis and format of the CO standard for Wheelabrator Ridge Energy (AC53-206244; PSD-FL-183A), which is the only known permitted waste wood/TDF-fired facility in the state (other than OkPLP and Osceola Power). The Ridge Energy facility, since it burns primarily biomass, operates in a similar manner to OkPLP, and fuel variability is an issue.

The Ridge Energy BACT limit for CO emissions was set at approximately 0.32 lb/MMBtu (200 lb/hr @ approx. 630 MMBtu/hr). The BACT determination stated, in regards to the actual CO test data, that a "Wide variation in CO emissions occurred but this was expected due to the nature of the feed." The Department goes on to state that "The Department believes that the final BACT emission limits should be based on the highest of the above CEMS data plus a margin for compliance.... On the basis of the data recorded through December 31, 1995, the permittee requested and was granted a greater margin for compliance in the case of CO emissions, since higher CO is tied to the uncontrollable moisture content of the wood fired." This is the same form of relief that OkPLP is now requesting, due to the same inherent characteristics of the biomass fuel burned at OkPLP.



As shown in the attached listing of daily average CO emissions from OkPLP, 24-hour average CO emissions have ranged as high as 1.21 lb/MMBtu, and the 30-day rolling average has ranged as high as 0.35 lb/MMBtu. The 95 percent confidence level emission rate for 24-hour averaging time is calculated to range from 0.48 to 0.56 lb/MMBtu, depending on the specific boiler. In order to provide a "greater margin of safety", the 0.5 lb/MMBtu requested limit on a 30-day rolling average is reasonable.

The 30-day rolling average format of the CO standard is consistent with the format of the CO standard for the Ridge Energy facility. The 30-day rolling average standard was issued as a best available control technology (BACT) determination for the Ridge Energy facility. This BACT determination stated that "In establishing initial limits based on 24-hour averages, the Department did not know that the fluctuation in emissions would be great enough to justify long-term averages in setting final limits." Such is the case with the OkPLP facility as well, as demonstrated by the continuous emissions monitor data.

Based on the daily CO emissions data and resulting 30-day rolling averages provided in Attachment A, a 0.5 lb/MMBtu CO limit based on a 30-day rolling average would not have been exceeded since the facility restarted operations in February 1998 (highest 30-day rolling average of 0.346 lb/MMBtu for Boiler "B" on 07/22/98). OkPLP is requesting an increased CO limit of 0.5 lb/MMBtu on a 30-day rolling average in order to insure future compliance at all times under all operating conditions.

Based on F.A.C. Rule 62-212.500(2)(d)5, Relaxations of Restrictions on Pollutant Emitting Capacity, if a relaxation in a federally enforceable limitation on capacity of the facility to emit a pollutant occurs at a previously permitted facility, prevention of significant (PSD) new source review applicability is determined as if though construction had not yet commenced on the facility. In other words, the original PSD baseline emissions of the facility are used to determine if the present request would trigger PSD new source review requirements.

The original PSD baseline CO emissions for the OkPLP facility are 10,388 TPY. The baseline CO emissions represent emissions from the existing Okeelanta sugar mill bagasse-fired boilers. The baseline emissions were established using actual stack test data and operating data from the Okeelanta sugar mill for the period 1991-1992. At a revised CO emission limit of 0.5 lb/MMBtu, the future maximum annual CO emissions from the OkPLP facility would be 2,875 TPY ( $11.5E+12$  Btu/yr x 0.5 lb/MMBtu x ton/2000 lb). Therefore, the net change in CO emissions would be -7,513 TPY. As a result, PSD review would not apply to the proposed modification request.

An additional issue at OkPLP is the provisions in the current construction permit for excess emissions. In Specific Condition 20 of the current permit, excess emissions are allowed for up to four (4) hours, as long as such emissions in excess of two (2) hours do not exceed six (6) times per year. Operational history shows that these provisions are not adequate, both in terms of duration and frequency. Suggested wording for SC 20 to resolve this issue is presented below:

"Visible emissions from any boiler.....

...,stack emissions shall not exceed any limit shown in the following table:

Emission Limit Table

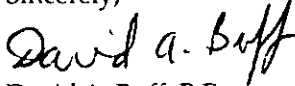
Continuous emission monitoring data shall be collected and recorded during periods of startup, shutdown, on-line and malfunction, except during periods of CMS breakdowns, repairs, calibration checks, and zero and span adjustments [40 CFR 60.47a(e)]. Emissions during periods of startup, shutdown, off-line and malfunction shall be excluded from

averaging calculations, and from determinations of compliance with emission limits of this permit [40 CFR 60.46a(c)]. Periods of startup, shutdown, on-line, off-line and malfunction are defined below:

- Startup            The period beginning at 4,000 lbs/hr steam flow up to 150,000 lbs/hr steam flow, or six (6) hours, whichever occurs first.
- Shutdown        The period beginning at 150,000 lbs/hr steam flow down to 4,000 lbs/hr steam flow, or six (6) hours, whichever occurs first.
- Off-Line         Operating at less than 4,000 lbs/hr steam flow.
- On-Line         Operating at greater than 150,000 lbs/hr steam flow.
- Malfunction     The duration of malfunctions shall not exceed three (3) hours per occurrence.

By this letter OkPLP requests modification of permit 0990332-006-AC (PSD-FL-196). Attached is a permit modification fee of \$5,000. Note that a construction permit application form is not attached, since the only item that is different from the previous application for this facility is the CO emission limit. Please call if you have any questions concerning this information. We look forward to your response concerning this request.

Sincerely,



David A. Buff, P.E.  
Principal Engineer  
Florida P.E. #19011  
SEAL

DB/arz

cc: James Meriwether  
Ajaya Satyal, PBCHU  
David Knowles, FDEP  
David Dee, Landers & Parsons

G:\DATA\DP\PROJECTS\98\9837\9837564a\01\01-LTR.doc

cc: EPA  
NPS  
palm Bch Co  
S. District  
J. Reynolds, BAR  
C. Helladay, BAR

APPENDIX A

Date	Boiler "A"		Boiler "B"		Boiler "C"	
	24-hour average (lb/MMBtu)	30-day average (lb/MMBtu)	24-hour average (lb/MMBtu)	30-day average (lb/MMBtu)	24-hour average (lb/MMBtu)	30-day average (lb/MMBtu)
2/27	0.695					
3/2	0.141					
3/3	0.065					
3/4	0.195				0.412	
3/5	0.050				0.051	
3/6	0.152				0.052	
3/7	0.153				0.218	
3/8	0.148				0.248	
3/9			0.605			
3/10	0.147					
3/11	0.114		0.386		0.120	
3/12	0.113		0.143		0.187	
3/13	0.104		0.122		0.148	
3/14	0.109		0.187		0.143	
3/15	0.100		0.130		0.117	
3/16	0.078		0.181		0.127	
3/17	0.100		0.196		0.117	
3/18	0.161		0.313		0.187	
3/19	0.160				0.255	
3/20						
3/21						
3/22						
3/23						
3/24						
3/25						
3/26	0.210				0.229	
3/27	0.157		0.333		0.143	
3/28	0.235		0.323		0.257	
3/29	0.183		0.217		0.183	
3/30	0.174		0.278		0.268	
3/31	0.083		0.113			
4/1	0.013		0.021			
4/2	0.040		0.070		0.101	
4/3	0.068		0.130		0.140	
4/4	0.048		0.152		0.135	
4/5	0.125		0.157		0.068	
4/6	0.057	0.139	0.104		0.073	
4/7	0.087	0.119			0.145	
4/8	0.130	0.118			0.182	
4/9	0.241	0.124			0.300	
4/10	0.248	0.126			0.257	
4/11	0.217	0.131			0.209	
4/12	0.187	0.133			0.187	0.175
4/13	0.191	0.134			0.174	0.171
4/14	0.298	0.139			0.276	0.178
4/15	0.307	0.144			0.289	0.181
4/16	0.228	0.148			0.252	0.181
4/17	0.268	0.153			0.252	0.185
4/18	0.230	0.157			0.365	0.191
4/19	0.322	0.164			0.326	0.197
4/20	0.349	0.173			0.315	0.203
4/21	0.278	0.179			0.274	0.208
4/22	0.294	0.186			0.255	0.212
4/23	0.255	0.189			0.144	0.211
4/24	0.230	0.191			0.275	0.217
4/25	0.157	0.190				
4/26	0.196	0.191	0.297			
4/27	0.300	0.193	0.339			
4/28	0.204	0.194	0.183			
4/29			0.313			
4/30	0.248	0.196	0.287			
5/1	0.469	0.209	0.508			
5/2			0.397			
5/3			0.343		0.225	0.218
5/4			0.343		0.183	0.216
5/5			0.591	0.258	0.322	0.219
5/6			0.626	0.259	0.378	0.227
5/7			0.396	0.259	0.430	0.232
5/8			0.387	0.267	0.226	0.234
5/9			0.422	0.277	0.265	0.234
5/10			0.513	0.288	0.383	0.243
5/11			0.587	0.304	0.443	0.253
5/12			0.157	0.303	0.235	0.256
5/13					0.143	0.259
5/14	0.132	0.213			0.143	0.261
5/15	0.118	0.216			0.148	0.261
5/16	0.109	0.217			0.170	0.261
5/17	0.196	0.222			0.261	0.260
5/18	0.283	0.227			0.191	0.257
5/19	0.161	0.231			0.155	0.256
5/20	0.130	0.232			0.248	0.258
5/21	0.135	0.232			0.243	0.260

Date	Boiler "A"		Boiler "B"		Boiler "C"	
	24-hour average (lb/MMBtu)	30-day average (lb/MMBtu)	24-hour average (lb/MMBtu)	30-day average (lb/MMBtu)	24-hour average (lb/MMBtu)	30-day average (lb/MMBtu)
5/22	0.104	0.228			0.224	0.258
5/23	0.239	0.227			0.191	0.255
5/24	0.304	0.230			0.149	0.252
5/25	0.087	0.227			0.164	0.249
5/26						
5/27						
5/28	0.344	0.232			0.289	0.246
5/29	0.235	0.230			0.224	0.243
5/30	0.172	0.225			0.210	0.239
5/31	0.119	0.222			0.152	0.235
6/1	0.422	0.227			0.356	0.239
6/2	0.397	0.232			0.427	0.248
6/3	0.596	0.242			0.592	0.259
6/4	0.768	0.256			0.642	0.272
6/5	0.976	0.279			0.667	0.289
6/6	0.105	0.273			0.189	0.284
6/7	0.250	0.272			0.230	0.279
6/8	0.274	0.274			0.206	0.272
6/9	0.099	0.272			0.218	0.271
6/10	0.309	0.276			0.279	0.272
6/11	0.530	0.283			0.373	0.272
6/12	0.184	0.283			0.123	0.261
6/13	0.166	0.280			0.201	0.260
6/14	0.157	0.270			0.185	0.261
6/15	0.453	0.280			0.329	0.267
6/16	0.151	0.281			0.231	0.270
6/17	0.356	0.290			0.489	0.281
6/18	0.134	0.288			0.096	0.275
6/19	0.262	0.287			0.136	0.273
6/20	0.263	0.290			0.286	0.278
6/21	0.213	0.293			0.193	0.276
6/22	0.244	0.297			0.240	0.276
6/23	0.141	0.298			0.178	0.274
6/24	0.141	0.295			0.208	0.275
6/25	0.122	0.289			0.217	0.277
6/26	0.234	0.293			0.270	0.281
6/27	0.364	0.294			0.309	0.281
6/28	0.361	0.298			0.720	0.298
6/29	0.274	0.302			0.374	0.302
6/30	0.200	0.304	0.252	0.305	0.196	0.304
7/1	0.122	0.294			0.157	0.297
7/2	0.117	0.285			0.130	0.287
7/3	0.141	0.270			0.174	0.273
7/4	0.431	0.259			0.355	0.264
7/5	0.396	0.239			0.264	0.250
7/6	0.300	0.246	0.293	0.304	0.221	0.252
7/7			0.282	0.302	0.248	0.252
7/8					0.187	0.252
7/9					0.098	0.248
7/10						
7/11						
7/12						
7/13			0.348	0.303	0.229	0.246
7/14			0.309	0.306	0.281	0.243
7/15			0.261	0.306	0.197	0.245
7/16			0.274	0.311	0.129	0.243
7/17	0.290	0.247	0.243	0.318		
7/18	0.174	0.244	0.204	0.323		
7/19	0.248	0.249	0.213	0.326		
7/20	0.331	0.250	0.347	0.332		
7/21	0.265	0.241	0.379	0.339		
7/22	0.243	0.243	0.291	0.346		
7/23	0.235	0.243	0.226	0.343		
7/24	0.255	0.248	0.213	0.339		
7/25	0.213	0.240	0.257	0.342		
7/26	0.152	0.240	0.265	0.340		
7/27	0.272	0.237	0.292	0.340		
7/28			0.293	0.333	0.330	0.248
7/29			0.355	0.332	0.214	0.244
7/30	0.183	0.239			0.235	0.244
7/31			0.388	0.331	0.295	0.238
8/1			0.248	0.328	0.161	0.240
8/2			0.300	0.319	0.183	0.241
8/3			0.295	0.308	0.183	0.238
8/4			0.270	0.303	0.243	0.239
8/5			0.358	0.302	0.248	0.240
8/6			0.296	0.298	0.274	0.243
8/7			0.183	0.287	0.257	0.245
8/8			0.217	0.275	0.248	0.246
8/9			0.300	0.280	0.226	0.244
8/10			0.313	0.282	0.278	0.243
8/11			0.287	0.281	0.213	0.226
8/12			0.248	0.280	0.191	0.221
8/13			0.252	0.277	0.261	0.223

Date	Boiler "A"		Boiler "B"		Boiler "C"	
	24-hour average (lb/MMBtu)	30-day average (lb/MMBtu)	24-hour average (lb/MMBtu)	30-day average (lb/MMBtu)	24-hour average (lb/MMBtu)	30-day average (lb/MMBtu)
8/14			0.313	0.277	0.291	0.228
8/15			0.426	0.283	0.348	0.235
8/16			0.465	0.289	0.435	0.244
8/17			0.322	0.292	0.239	0.240
8/18			0.217	0.292	0.204	0.238
8/19	0.485	0.247	0.265	0.294	0.272	0.239
8/20	0.284	0.247	0.230	0.290		
8/21	0.230	0.248	0.204	0.284		
8/22	0.296	0.250	0.265	0.283		
8/23	0.263	0.254	0.204	0.283		
8/24	0.357	0.261	0.304	0.286		
8/25	0.300	0.267	0.304	0.288		
8/26	0.150	0.264	0.248	0.287		
8/27	0.148	0.257	0.300	0.287		
8/28	0.173	0.251	0.274	0.287		
8/29	0.252	0.250	0.335	0.286		
8/30	0.226	0.251	0.296	0.285		
8/31	0.100	0.250	0.248	0.285		
9/1	0.250	0.255	0.209	0.282		
9/2	0.217	0.257	0.252	0.280		
9/3	0.287	0.253	0.170	0.277		
9/4	0.252	0.248	0.191	0.271		
9/5	0.274	0.247	0.148	0.266		
9/6	0.304	0.247	0.148	0.265		
9/7	0.270	0.251	0.178	0.264		
9/8	0.204	0.249	0.261	0.263		
9/9	0.226	0.246	0.243	0.260		
9/10	0.243	0.245	0.226	0.258		
9/11	0.217	0.244	0.222	0.257		
9/12	0.236	0.244	0.257	0.258		
9/13	0.300	0.245	0.209	0.254		
9/14	0.278	0.248	0.212	0.247		
9/15	0.213	0.250	0.240	0.239		
9/16	0.239	0.249	0.230	0.236		
9/17	0.274	0.252	0.248	0.237		
9/18	0.283	0.245	0.187	0.235		
9/19	0.296	0.245	0.287	0.237		
9/20	0.300	0.248	0.383	0.243		
9/21	0.248	0.246				
9/22	0.252	0.246				
9/23	0.504	0.251				
9/24						
9/25						
9/26						
9/27	0.705	0.264				
9/28	0.296	0.269			0.332	0.233
9/29	0.248	0.272			0.614	0.254
9/30	0.188	0.273			0.423	0.268
10/1	0.248	0.273			0.300	0.270
10/2	0.796	0.292				
10/3	1.209	0.329				
10/4						
10/5						
10/6						
10/7						
10/8			0.398	0.247		
10/9			0.335	0.251		
10/10			0.343	0.253		
10/11			0.378	0.255		
10/12			0.326	0.258		
10/13			0.263	0.257		
10/14	0.239	0.328				
10/15	0.212	0.328	0.256	0.256		
10/16			0.273	0.254		
10/17	0.155	0.324	0.232	0.252		
10/18	0.313	0.326	0.260	0.252		
10/19	0.224	0.324	0.268	0.254		
10/20	0.342	0.325	0.252	0.254		
10/21	0.235	0.324	0.226	0.256		
10/22	0.187	0.324	0.204	0.256		

No. of Values	169	140	123	94	139	110
Average	0.246	0.244	0.278	0.284	0.246	0.248
Maximum	1.209	0.329	0.626	0.346	0.720	0.304
Standard Dev.	0.157		0.102		0.115	
Upper 95% Confidence Interval	0.560		0.483		0.476	

FLORIDA CRYSTALS CORPORATION  
316 ROYAL POINCIANA PLAZA  
PALM BEACH, FLORIDA 33480-4099

**FIRST UNION** First Union National  
of Florida  
PENSACOLA, FL 32634

63-1012  
632

NO. 007167

DATE 12/03/98

7167

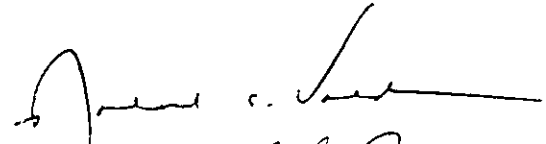
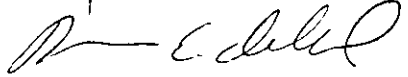
AMOUNT  
\$ \*\*\*\*\*5000.00

PAY  
FIVE THOUSAND AND 00/100

----- DOLLAR

TO  
THE  
ORDER  
OF

Florida Department of Environmental Protection  
STATE OF FLORIDA  
THE CAPITOL  
TALLAHASSEE FL 32399-0800

⑈007167⑈ ⑆063210125⑆2079940004247⑈

0990332-010-AC

FLORIDA CRYSTALS CORPORATION  
316 ROYAL POINCIANA PLAZA  
PALM BEACH, FLORIDA 33480-4099

**FIRST UNION**  
First Union National  
of Florida  
PENSACOLA, FL 32634

63-1012  
632

NO. 007167

DATE 12/03/98

7167

AMOUNT  
\$ \*\*\*\*\*5000.00

PAY  
FIVE THOUSAND AND 00/100

DOLLARS

TO THE ORDER OF  
Florida Department of Environmental Protection  
STATE OF FLORIDA  
THE CAPITOL  
TALLAHASSEE  
FL 32399-0800

⑈007167⑈ ⑆063210125⑆ 2079940004247⑈