



December 4, 1992

Mr. Willard Hanks
Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED

DEC 08 1992

Division of Air
Resources Management

Re: Okeelanta Boiler No. 16
Permit No. AC50-191876

Dear Mr. Hanks:

This correspondence is in follow-up to my conversation with Mr. Greg Worley of EPA Region IV concerning the above referenced source. AS you know, Okeelanta has requested that it be allowed to operate Boiler No. 16 during the crop season, when other boilers at the sugar mill are also operating. As explained to you and EPA, Boiler No. 16 operation will only replace No. 6 fuel oil burning in one of the existing boilers. It will not replace bagasse burning, nor will it result in increased steam production either on a maximum hourly basis or an annual basis.

Operation of the boilers during the crop season is directly related to the amount of sugar cane processed at the mill, which in turn generates a proportionate amount of bagasse which is available for combustion in the boilers. Okeelanta will always burn as much as possible of the bagasse generated in the sugar mill, since it is a by-product material and a "free" fuel. Fuel oil, either No. 6 or No. 2, would never be used as a replacement for bagasse. It is only used when bagasse is not available to the boilers. Therefore, Okeelanta would only burn No. 2 oil in Boiler No. 16 as a replacement for No. 6 oil burned in one of the other boilers.

In speaking with Greg Worley, EPA's concern is over increased ambient air quality impacts if Boiler No. 16 is operated during the crop season, and all other boilers at the mill were operating simultaneously at their maximum operating rates. This theoretically could increase air quality impacts and PSD increment consumption (primarily for SO₂) over impacts based on what the facility is now permitted to emit. The following facts relate to this aspect and support the conclusion that no increase in impacts above present conditions will occur when operating Boiler No. 16 in the crop season:

- * The total steam generating capacity of all boilers now permitted to operate during the crop season at Okeelanta, i.e., Boilers 4, 5, 6, 10, 11, 12, 14 and 15, is 1,012,000 lb/hr. This maximum hourly steam generating rate will not be exceeded in the future with Boiler No. 16 operating during the crop season.
- * SO₂, particulate and emissions of most other pollutants due to No. 2 oil firing are much less than those due to No. 6 fuel oil firing. Mr. Carreno has addressed this aspect in his letter to you dated September 25, 1992. No. 2 oil results in 0.5 lb/MM Btu SO₂ whereas No. 6 oil results in 2.5 lb/MM Btu SO₂.

12118A1/8

KBN ENGINEERING AND APPLIED SCIENCES, INC.
1034 Northwest 57th Street Gainesville, Florida 32605 904/331-9000 FAX: 904/332-4189



- * Although the stack for Boiler No. 16 (75 ft) is slightly lower than the stacks for the other boilers (all at 90 ft), Boiler No. 16 has no wet scrubber for particulate control and therefore its exhaust gas temperature (435 °F) is much higher than the other boilers (150 °F). Thus the plume rise for Boiler No. 16 will be greater than for the other boilers, resulting in comparatively lower air impacts.

Mr. Worley indicated to me that if these circumstances existed, EPA's concerns would be addressed, and it would be up to DER to determine if any further would need to be addressed. Please consider these comments in your decision. Since I will be out of the office for the next several weeks, please contact Ken Kosky in my office if you have any further questions.

Sincerely,

A handwritten signature in cursive script that reads "David A. Buff". The signature is written in black ink and is positioned above the typed name.

David A. Buff, M.E., P.E.
Principal Engineer

cc: P. Carreno
G. Worley

W. HAWKS

OKEELANTA CORPORATION

6 MILES SOUTH OF SOUTH BAY
POST OFFICE BOX 86
SOUTH BAY, FLORIDA 33493

TELEPHONE: (407) 996-9072

TELEX: 803444

November 13, 1992

Mr. C. H. Fancy, P.E.
Chief Bureau of Air Regulation
Florida Dept. of Environmental Regulations
2600 Blair Stone Road
Tallahassee, FL 32399-2400

11-20
~~J.B. V. F. T.~~
~~P.L.~~
~~R.M.~~ PA
Willard H.

Ref: Okeelanta Corporation, Boiler No. 16

Dear Mr. Fancy:

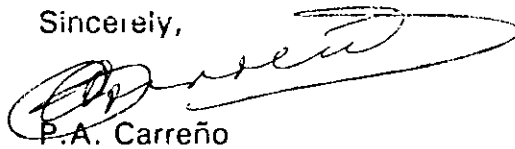
I am sorry for the delay in answering your letter of October the 15th 1992 about the matter of subject.

In conversation between myself and Mr. Willard Hank and our Mr. Gus Cepero and Mr. Gregg Worley in Atlanta it became apparent that my letter of September 25 was misinterpreted.

We are not to substitute bagasse for No. 2 fuel oil (Diesel) but to substitute No. 6 fuel oil presently used as a supplemental fuel in our bagasse burning boilers by No. 2 fuel oil that is more efficiently burned in Boiler No. 16.

By copy of this letter I am asking Mr. David Buff from KBN to arrange for a meeting with you and/or Mr. Gregg Worley to clarify this matter and explain all pertinent data.

Sincerely,



P.A. Carreño
Director of Mill &
Refinery Operations

PAC:slc

xc: Gregg Worley, EPA Atlanta
David Knowls, DER - Ft. Myers
Willard Hanks, DER - Tallahassee
David Buff, KBN

FILE:BNO16

RECEIVED

NOV 19 1992

Division of Air
Resources Management

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)

Clair Faney

Initial

Date

2.

DEB - Tally

Initial

Date

3.

Dir -

Initial

Date

4.

W. Ward

Initial

Date

REMARKS:

INFORMATION

Review & Return

Review & File

Initial & Forward

DISPOSITION

Review & Respond

Prepare Response

For My Signature

For Your Signature

Let's Discuss

Set Up Meeting

Investigate & Report

Initial & Forward

Distribute

Concurrence

For Processing

Initial & Return

FROM:

S. District

DATE

12-13-91

PHONE

Willard

OKEELANTA CORPORATION

6 MILES SOUTH OF SOUTH BAY
POST OFFICE BOX 86
SOUTH BAY, FLORIDA 33493

TELEPHONE: (407) 996-0072

TELEX: 803444

RECEIVED

NOV 27 1991

Division of Air
Resources Management

November 25, 1991

Mr. Philip R. Edwards
Deputy Assistant Secretary
Florida Dept. of Environmental Regulation
South District
2269 Bay Street
Fort Myers, FL 33901-2896

Subject: Upgrading Boiler No. 6
Permit Number A050-175414

Dear Mr. Edwards:

This is to inform you of our intentions to up-grade the above mentioned boiler from 250 psig operating pressure and 550°F up to 350 psig and 650°F. This is to proceed with the energy saving program that we have in progress.

This modification is similar to the upgrading done to our boilers No. 4 (Permit No. A050-169210) and No. 5 (Permit No. A050-190690) in 1988.

In accordance, we are providing you with the heat balance calculations showing that in order to account for the higher heat content of the new conditions, the quantity of steam to be produced by boiler No. 6 has to be reduced from 125,000 lbs/hr to 120,000 lbs/hr. The cost of the changes to be made, \$787,522 is much less than half the cost of \$2,850,000 for a new equivalent boiler, not including the foundation as well as scrubber and any other air pollution equipment.

Although it has nothing to do with the steam upgrading of this boiler we want to let you know that we are taking this opportunity to replace the old and inefficient horse-shoe type furnaces for an inclined grate at a cost of \$401,850.

12-2-91

PHONE CONVERSATION BETWEEN DAVID KNOWLES, S FL DIST, AND
W. HANKS, BAR. AGREEO THAT S FL DIST WOULD
PROCESS REQUEST.

WML

Page 2
DER - Boiler No. 6

Back up papers are attached to this letter. Please let us know if you need additional information.

We have to start this modification by the end of this crop on March 15, 1991 in order to have it ready for the next crop.

Your prompt attention to this matter is appreciated.

Sincerely,



Pablo Carreño
Director of Mill &
Refinery Operations

PAC:slc

xc: Mr. Claire Fancy, DER - Tallahassee - W/attachments
Mr. David Knowls, DER - Ft. Myers - " "
Mr. Arthur Kirstein, III
Mr. Frank Fernandez
Mr. Roger King

FILE:derupboil6

ENERGY SAVINGS - UPGRADE OF BOILER #6

PERMIT # A050-175414

MAX CONTINUOUS RATING - 125,000 #/HR

	EXISTING	PROPOSED
Steam Pressure psig	250	350
Steam Temp deg F TT	550	650
Enthalpy BTU/#	1,290	1,337.5
Feedwater temp	260	260
Feedwater enthalpy	228.5	228.5
Heat to feedwater	1,061.5	1,109
Heat Input BTU/HR	125,000 x 1061.5	
	= 132.69 x 10 ⁶	
Equiv steam rate		132.69 x 10 ⁶ /1109
		= 119.646 #/HR

MAXIMUM CONTINUOUS RATING REQUESTED - 120,000 #/HR



780 N.W. LaJeune Road, Suite 417 • Miami, FL 33126
Tel. (305) 442-2233 • Fax (305) 445-9125

TO: OKELANTA CORP.

DATE: 11-22-91

ATTN: PABLO CARRENO

PAGE: 1/1

FROM: MIGUEL ANDUX

FAX REF. NO.: 003163F

REF: REVAMP OF BOILER NO. 6 ALPHA 91106-A

=====

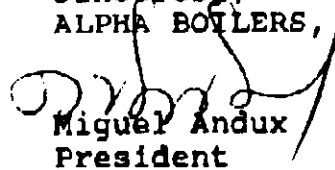
MESSAGE:

As per your request, please find below the breakdown cost for the revamp of the pressure parts for Boiler No. 6 and installation cost for a new Alpha inclined grate system.

Revamping pressure parts	\$787,522.00
New Alpha inclined grate	\$401,850.00
	<u>1,189,372.00</u>

If you need further assistance please do not hesitate to contact us.

Sincerely,
ALPHA BOILERS, INC.


Miguel Andux
President

REQUISITIONER R. KING	DELIVER TO OKEELANTA CORP.	APPROVED BY <i>[Signature]</i>	APPROVED BY	APPROVED BY	REQUISITION DATE 11/19/91
ACCOUNT NUMBER 3861	EST. VALUE \$1,300,000.	DATE REQUIRED 10/5/92	SUGGESTED SUPPLIER ALPHA BOILERS INC.	ADDRESS	REQUISITION NUMBER

OKEELANTA CORPORATION
SOUTH BAY, FLORIDA 33493

FM - 01167
PURCHASE ORDER NO.
This P.O. No. must appear on all invoices, packages and shipping papers.

FLA. STATE SALES TAX _____ YES _____ NO EXEMPTION NUMBER

- INVOICE AND SHIP TO:**
- OKEELANTA CORPORATION
6 MILES SOUTH OF SOUTH BAY ON U.S. 27
P.O. BOX 86
SOUTH BAY, FLA. 33493 • TEL: (407) 996-9072
 - ACKNOWLEDGMENTS AND INQUIRIES TO:**
 - AMERICA'S EXPORT CORP.
626 NORTH DIXIE HWY.
WEST PALM BEACH, FL. 33401
TEL: (407) 659-6449

No substitution of any kind will be accepted if not previously authorized by us.

DATE	SHIP VIA	TERMS	DELIVERY PROMISED	F.O.B.
				<input type="checkbox"/> DELIVERY POINT <input type="checkbox"/> SHIPPING POINT

ITEM	STOCK NO	ACCT NO	QUANTITY AND UNIT	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
				UPRATE OF BOILER #6		
				To provide materials, equipment, labor and supervision to undertake the project as described in the specifications attached (3 pages)		
				Reference:		
				ALPHA Proposal #91106-A, dated 9/13/91		
				ALPHA letter dated 10/4/91		
				Material & Equipment per original	\$879,826.00	
				Labor " "	298,781.00	
				Non return valve " "	13,583.00	
				8 extra clean out doors per 10/4	2,875.00	
				Steel support for grate per 10/4	13,000.00	
				3/16" casing instead of 10 gauge	9,347.00	
				TOTAL	\$1,217,412.00	
				Deduct for omission of feeders	28,040.00	
				TOTAL ORDER	\$1,189,372.00	
				NOTE: Type of feeders are to be decided during the early part of crop 1991/92		
	F44-13A					

INSTRUCTIONS - Acknowledge receipt of this order at once. - Notify us at once with a definite or reliable projected shipping date. - When projected shipping dates are furnished it will be necessary that we be advised a definite date as soon as it can be determined. - Send original Bill of Lading or original signed Express Receipt and Shipping Memorandum/Packing list same date shipment is made. - Place our Order Number on all invoices, memoranda and packages. Send your INVOICE IN DUPLICATE, together with one copy of Shipping Memorandum/Packing list to COMPTROLLER DEPARTMENT. - We will not be responsible for anything furnished without a written order. - No price increase will be accepted

OKEELANTA CORPORATION

By _____
AUTHORIZED SIGNATURE
ACKNOWLEDGED AND ACCEPTED

By _____
FOR SUPPLIER

UPRATE OF BOILER #6 TO 350psig/650 deg F FM-01167

1.0 Scope of Supply

- 1.1 To supply fabricated components to replace existing pressure parts of the above boiler.
- 1.2 To supply boiler trim and associated piping required to work with new pressure parts.
- 1.3 To supply/modify supports to suit new pressure parts.
- 1.4 To supply inclined, water cooled grate with steam assisted ash removal and front ash chamber.
- 1.5 To supply chutes to feed above grate system along with necessary supports, access platforms, stairs etc. NOTE - FEEDERS ARE SPECIFICALLY EXCLUDED AT THIS TIME.
- 1.6 To strip down existing walls, pressure parts, furnaces etc from above boiler and install new components, refractory and casing.
- 1.7 To pressure test and chemically clean all new pressure parts.
- 1.8 To supply/replace insulation and cladding as necessary.
- 1.9 To recommission uprated boiler.

2.0 Specifications

- 2.1 Boiler #6 is a Bigelow F-48 3-drum, 125,000#/hr unit with a design pressure of 300 psig and an operating pressure of 200 psig. Steam produced has 60 degF superheat. Heating surface is approximately 18,000 sq ft. It is equipped with five (5) Bigelow-Liptak moist fuel furnaces and an air heater of approximately 15,360 sq ft HS. The boiler currently burns bagasse and/or wood chips and/or #6 fuel oil and is supplied with feedwater at 260 deg F.
- 2.2 Above boiler shall be uprated to produce steam at 350 psig and 650 deg F with a design pressure of 450 psig. Heat input restrictions will limit MCR of boiler to approximately 119,700 #/hr.
- 2.3 All new components shall be designed, fabricated and installed in accordance with the applicable codes, latest revisions.
- 2.4 In order to undertake the above work it may be necessary for ALPHA BOILERS INC. ("Contractor") to temporarily remove sections of the boiler building and/or platforms as well as piping. Any facilities disrupted must be restored to full working condition by the Contractor unless agreement to the contrary is obtained from Okeelanta Corporation ("Owner").
- 2.5 Terminal points shall, in general, be valves for the various duties. Valves shall be located in positions to be agreed with Owner.
- 2.6 Furnace width shall be 24 ft and stoker width 20'-8".
- 2.7 Grate height to be lowered 12" from that shown on ALPHA proposal drawing to facilitate cleaning.
- 2.8 Existing windboxes and oil burners shall be modified/relocated and reused to suit the new arrangement.

2.0 continued

- 2.6 Contractor shall advise Owner whether any changes are required to the existing fans for the revised duty.
- 2.7 Casing shall be 3/16" steel plate in place of the 10 ga material originally proposed by Contractor.
- 2.8 Eight additional cleanout doors shall be provided in order that the ash chamber may be cleaned from the front and that the undergrate area may be accessible for cleaning.
- 2.9 The grate shall be provided with steel supports in place of the concrete originally specified by the Contractor.
- 2.10 The shut-off/non return valve offered by the Contractor shall be included in this supply.

3.0 To be provided by Owner

- 3.1 All consumables for completion of the work except as specified in section 5.5.
- 3.2 Utilities - note, no 230V power available.
- 3.3 Craneage and other assistance with, e.g. forklift truck. It is Owner's understanding that a crane shall be required for an aggregate total of 12 days. Any requirement for craneage over and above this time shall be for the account of Contractor at commercial rates.
- 3.4 Information to assist in execution of the work.
- 3.5 Steam, water and other piping to and from terminal points.

4.0 To be provided by Contractor

- 4.1 All cutting and welding equipment including torches, hoses, welding plants, leads, holders, etc.
- 4.2 Lifting tackle, tools etc as required to undertake the work.
- 4.3 Labor and supervision - welders shall be certified and proof of certification shall be presented before any welder is permitted to start work.
- 4.4 Material as specified in section 5.5.
- 4.5 Craneage over and above an aggregate total of 15 days.

5.0 General

- 5.1 Owner's authorized representative with whom Contractor shall liase during the course of the work shall be Mr Frank Fernandez, Mill Superintendent.
- 5.2 Prior to commencement of work Contractor shall provide Owner with proof of adequate workmen's compensation coverage for persons to be employed by Contractor during the course of this work.

5.0 continued

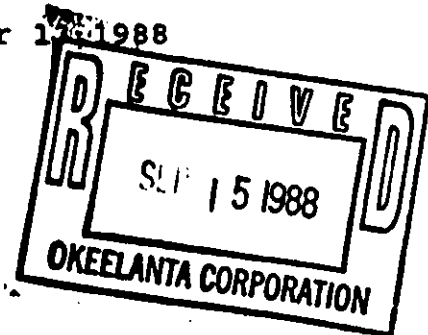
- 5.3 Contractor shall indemnify Owner from liability against damage caused by any incident(s) which may occur during the course of this work.
- 5.4 Owner reserves the right of approval of any employee of Contractor.
- 5.5 Any components damaged by Contractor shall be properly repaired or replaced by Contractor at no cost to Owner.
- 5.6 No vehicles shall be allowed to park in areas other than those designated for parking unless fitted with, e.g. fixed welding plant, required for use in undertaking the work specified.
- 5.7 For further general conditions please refer to Addendum "A".

6.0 Timing

- 6.1 All major components must be delivered before March 31st 1992.
- 6.2 The uprated boiler must be ready to be placed in service no later than October 5th 1992.



September 15 1988



OKEELANTA CORPORATION
P.O. Box 86
South Bay, FL.
33493

Att: Pablo Carreno

Re: Proposal 88100-M

Dear Sir:

In accordance with your request, we are pleased to offer one complete new stoker fired boiler installation as follows.

ONE ALPHA STEAM GENERATING UNIT CONSISTING OF:

- Item I - One ALPHA Boiler, 110,000 lbs. per hour, 475 p.s.i.g. design pressure, 650 F total steam temperature.
- Item II - One Burner Assembly.
- Item III - One Detroit Rotograte Stoker and Sluice Assembly.
- Item IV - One Setting and Insulation Assembly.
- Item V - One Forced Draft Fan Assembly.
- Item VI - One Induced Draft Fan Assembly.
- Item VII - Dust Collector.
- Item VIII - Ductwork and Stack.
- Item IX - Piping and Wiring.
- Item X - One Set of Instruments and Controls and Motor Control Center.
- Item XI - Erection.

Dismantling of existing equipment and foundation as well as scrubber and air pollution equipment not included.

The price of this equipment F.O.B. Okeelanta Factory will be\$ 2,375,000.00

Shipment could be started eight months after your approval of our engineering drawings and completed 12 months thereafter.

We thank you for the opportunity of quoting.

Very truly yours,
ALPHA BOILERS, INC.



Miguel Andux
Exec. Vice-President

MA/mo

	<u>1988</u>	<u>1990</u>	<u>1991</u>
	\$ 2,375,000	\$ 2,850,000	\$ 2,850,000
		1.20	



Florida Department of Environmental Regulation

South District • 2269 Bay Street • Fort Myers, Florida 33901-2896 • 813-332-2667

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

Philip Edwards, Deputy Assistant Secretary

February 3, 1989

Mr. P. A. Carreno
Okeelanta Corporation
Post Office Box 86
South Bay, Florida 33493



Re: Palm Beach County - AP
Okeelanta Corporation
Boilers 4 and 5
A050-92636 and A050-115245

Dear Mr. Carreno:

We have received your letter of January 4, 1989 requesting amendments to the permits for boilers 4 and 5 and the letter from Clair Fancy dated November 18, 1988, with his analysis of the proposed changes.

You are hereby authorized to change tubes, headers, drums, etc. as required to increase steam pressure and temperature to 350 PSIG and 650° F, in boilers 4 and 5. The design steam capacity of boiler No. 4 is changed to 90,000 lbs/hr and the design steam capacity of boiler No. 5 is changed to 116,800 lbs/hr.

All other permit conditions remain unchanged.

Sincerely,

Philip R. Edwards
Deputy Assistant Secretary

PRE/DMK/jsw

cc: Clair Fancy
A. J. Satyal



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

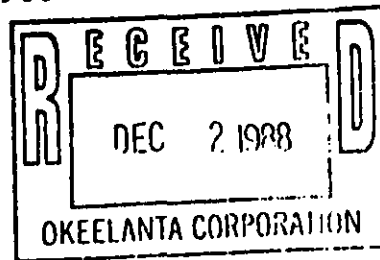
Rob Martinez, Governor

Dale Swachmann, Secretary

John Shearer, Assistant Secretary

November 18, 1988

Mr. P. A. Carreno
Okeelanta Corporation
Post Office Box 86
South Bay, Florida 33493



Dear Mr. Carreno:

Re: Increase Steam Pressure and Temperature for Boilers
Numbers 4 and 5

We have reviewed your correspondence showing the affect the increase in steam pressure and temperature for boilers Nos. 4 and 5 will have on the emissions from the sugar mill. It is our conclusion that the actual emissions are a direct function of the heat input to the boilers. Therefore, the construction and operation permits for these two boilers can be amended to authorize the production of steam with a higher temperature and pressure provided the heat input to each boiler does not exceed the quantity allowed by the latest construction permit for each boiler. It will be necessary to reduce the allowable steam production rate of these boilers to account for the higher heat content of the steam. If you wish to proceed with this amendment, please provide Mr. David Knowles at the Department's South Florida District office with heat balance calculations that show the quantity of higher heat content steam that can be produced by boilers Nos. 4 and 5 at their current allowable heat input. You will be limited to this new rate by permit condition.

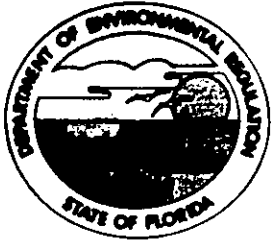
If you have any questions on this matter, please call Willard Hanks at (904)488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/WH/s

cc: D. Knowles, SF District



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

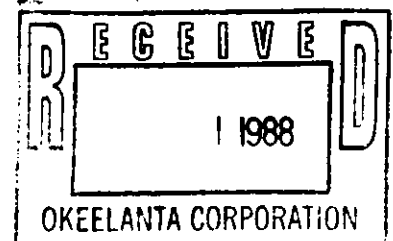
Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

August 25, 1988

Mr. P. A. Carreno
Director Mill & Refinery Operation
Okeelanta Corporation
Post Office Box 86
South Bay, Florida 33493



Dear Mr. Carreno:

We have reviewed your request to increase the steam pressure and temperature of the boilers at your sugar mill. To operate at the new steam conditions will require your existing permits be amended or new permits to construct be obtained. More information will be needed to determine how to handle the proposed change in steam conditions.

If the change can be made to each boiler for less than half the cost of a new equivalent boiler, all current permit restrictions (other than steam temperature and pressure) will continue to be complied with, and there will be no increase in heat input and actual emissions of any regulated and unregulated pollutant, then the existing permit for the boiler can be amended to authorize operation at the new steam conditions. The Department will require cost data for the change along with a heat and material balance that shows the actual emissions do not increase for any pollutant. The amendment of the permit may establish new allowable emission standards for the boiler equal to the actual emissions from them and require pre and post construction tests to confirm the actual emissions are not increased.

If the cost of tubes, headers, and drum exceed 50 percent of the cost of a new equivalent boiler or the emissions of any pollutant from the boiler increases, the change will require a new permit to construct. The regulations that the boiler modification would be subject to are determined by the magnitude of the increase in emissions.

Also, any federal permit issued by EPA for these boilers would have to be amended prior to operating at the new steam conditions. Their policy for amending permits and requiring new permits to construct are similar to the guidelines described in this letter.

Mr. P. A. Carreno
Page 2
August 25, 1988

I you have any questions on this matter, please call Willard Hanks at (904)488-1344 or write to me at the Department's Tallahassee address.

Sincerely,



C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/plm

cc: David Knowles, SF Dist.