

DEPARTMENT OF ENVIRONMENTAL REGULATION

**ROUTING AND TRANSMITTAL SLIP**

ACTION NO  
 ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION) <i>Clair Farcy - BAQM</i>	Initial
	Date
2. <i>Callahan</i>	Initial
	Date
3. <i>Willard 2/10</i>	Initial
	Date
4.	Initial
	Date

REMARKS:

**RECEIVED**

**FEB 6 1989**

**DER - BAQM**

*Willard*  
 Do you want to keep this in your office or should I keep it in the active permits? inactive? Path

INFORMATION

Review & Return  
 Review & File  
 Initial & Forward

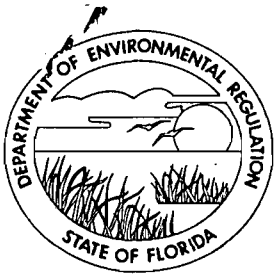
DISPOSITION

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:

*David Knowles  
 Jart Myers*

DATE  
*2-3-89*  
 PHONE  
*721-7900*



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

Philip Edwards, Deputy Assistant Secretary

February 3, 1989

RECEIVED

FEB 6 1989

DER-BAQM

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

OKEELANTA CORPORATION

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

TELEPHONE: (407) 996-9072

TELEX: 803444

January 4, 1988

RECEIVED

JAN 06 1989

DER-BAQM

Florida Department of  
Environmental Regulations  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Attn: Mr. Claire Fancy P. E.  
Deputy Chief  
Bureau of Air Quality Management

Subject: Boiler No. 4 Permit No. AD-50-92636  
Boiler No. 5 Permit No. AD-50-11545

Dear Mr. Fancy,

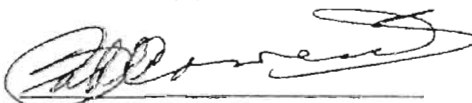
This is in reference to your letter dated November 18, 1988, that we received on December 2, 1988 concerning the increase in steam pressure and temperature for the above mentioned boilers.

After further consideration on this matter, we have agreed with the conclusion that you have expressed in the above mentioned letter.

We are proceeding to provide Mr. David Knowles at the Department's South Florida District office with the heat balance calculations that shows the quantity of higher heat content steam that can be produced by the boilers in question at their current allowable heat input.

Thank you for your attention in this matter.

Sincerely,



P.A. Carreno  
Director of Mill &  
Refinery Operations

PAC:slg

xc: Mr. Willard Hanks  
Mr. David Knowles, S.F. District  
Mr. Arthur Kirstein, III

OKEELANTA CORPORATION

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

TELEPHONE: (407) 996-9072

TELEX: 803444

January 4, 1988

Florida Department of  
Environmental Regulations  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RECEIVED

JAN 06 1989

✓ Attn: Mr. Claire Fancy P. E.  
Deputy Chief  
Bureau of Air Quality Management

DER-BAQM

Subject: Boiler No. 4 Permit No. AO-50-92636  
Boiler No. 5 Permit No. AO-50-11545

Dear Mr. Fancy,

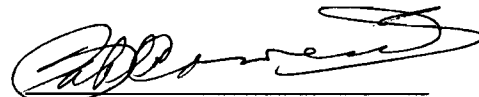
This is in reference to your letter dated November 18, 1988, that we received on December 2, 1988 concerning the increase in steam pressure and temperature for the above mentioned boilers.

After further consideration on this matter, we have agreed with the conclusion that you have expressed in the above mentioned letter.

We are proceeding to provide Mr. David Knowles at the Department's South Florida District office with the heat balance calculations that shows the quantity of higher heat content steam that can be produced by the boilers in question at their current allowable heat input.

Thank you for your attention in this matter.

Sincerely,



P.A. Carreno  
Director of Mill &  
Refinery Operations

PAC:slg

xc: Mr. Willard Hanks  
Mr. David Knowles, S.F. District  
Mr. Arthur Kirstein, III

OKEELANTA CORPORATION

6 MILES SOUTH OF SOUTH BAY

POST OFFICE BOX 88

SOUTH BAY, FLORIDA 33493

TELEPHONE: (407) 996-9072

TELEX: 803444

January 4, 1988

Department of Environmental  
of Regulation  
2269 Bay Street  
Ft. Myers, FL 33901

Attention: Mr. Phill Edwards

Subject: Upgrading Boilers:  
Number 4 Permit A0-50-92636  
Number 5 Permit A0-50-11545

Dear Mr. Edwards:

As you know we have been in contact with Mr. Claire Fancy from Tallahassee concerning our intentions to increase the steam pressure and temperature of the boilers mentioned above, from 250 psig operating pressure and 550°F up to 350 psig and 650°F. This is to proceed with an energy saving program that we have in progress.

In a letter dated November 18, 1988, Mr. Fancy is informing us of his departments conclusions on this matter; it is 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. Please see the copy of the letter attached.

After further consideration in this matter we have agreed with this conclusions and with this purpose we mailed a letter to Mr. Fancy dated January 4, 1989. A copy is also enclosed with this letter.

To proceed with this amendment we are providing you with the heat balance calculations showing that in order to account for the higher heat content, the quantity of steam to be produced by Boiler Number 4 has to be reduced from 94,000 lbs/hr down to 90,000 lbs/hr; and for Boiler Number 5 it has to be reduced from 122,000 lbs/hr down to 116,800 lbs/hr.

Page 2

Boiler Permit Number 4 & 5

We have to start these modifications to the boilers by the end of this crop on March 15, 1989, in order to have it ready for the next crop.

Your prompt attention to this matter is appreciated.

Sincerely yours,



P. A. Carreno  
Director of Mill &  
Refinery Operations

PAC: slg

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

Okéelanta Corporation  
Heat Balance Calculations  
Boilers Number 4 and 5

Boiler Number 4

1. (a) Required heat input to feed water for a current steam rating of 94,000 lbs/hr at 250 psig and 550°F equals:

1061.5 BTU/lb

- (b) Feed water heat input = 94,000 X 1061.5 equals:  
99.78 X 10<sup>6</sup>

At 55% efficiency the actual heat input equals:  
(99.78 X 10<sup>6</sup>) ÷ 0.55 equals 181.42 X 10<sup>6</sup> BTU/hr

- (c) Permitted particulate emission equals 0.3 lb/BTU X 10<sup>6</sup> /hr equals 181.42 X 0.3 equals 54.43 lbs/hr.

$$\frac{54.43 \times 24 \text{ hr/day} \times 140 \text{ day/yr}}{2000} = 91.44 \text{ tons/yr}$$

2. (a) After boiler has been up rated to produce steam at 350 psig and 650°F, particulate emissions must not exceed 91.44 tons/yr or 54.43 lbs/hr. Accordingly, heat input to boilers must not exceed 181.42 X 10<sup>6</sup> BTU/hr and heat input to feed water must not exceed 99.78 X 10<sup>6</sup> BTU/hr.

- (b) Required heat input to feed water for proposed conditions of 350 psig and 650°F equals 1,109 BTU/lb.

- (c) Therefore, the new firing rate of boiler will be  
 $\frac{99.78 \times 10^6}{1109}$  equals 90,000 lbs/hr  
=====

Boiler Number 5

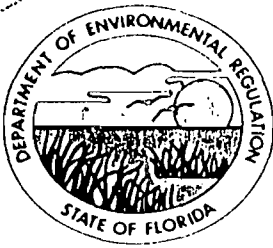
Same reasoning as for Boiler Number 4

1. (a) As per boiler Number 4 equals 1061.5 BTU/lb

- (b) 122,000 X 1061.5 equals 129.50 X 10<sup>6</sup>  
(129.50 X 10<sup>6</sup>) ÷ 0.55 equals 235.45 X 10<sup>6</sup> BTU/hr

- (c) 235.45 X 0.3 equals 70.64 lbs/hr  
 $\frac{70.64 \times 24 \text{ hrs} \times 140 \text{ days}}{2000} = 118.68 \text{ Tons/yr}$

2. (a) New firing rate for boiler  
 $\frac{129.50 \times 10^6}{1109} = 116,800 \text{ lbs/hr}$   
=====



# Florida Department of Environmental Regulation

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

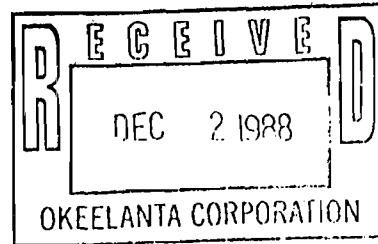
Bob Martinez, Governor

Dale Twachtman, 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.

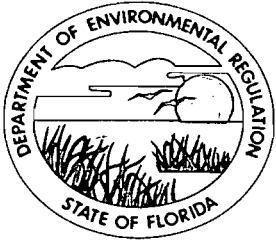
Sincerely,

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

November 18, 1988

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

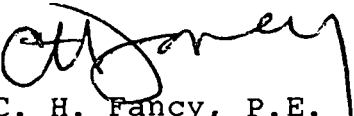
Dear Mr. Carreno:

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

OKEELANTA CORPORATION

6 MILES SOUTH OF SOUTH BAY

POST OFFICE BOX 86

SOUTH BAY, FLORIDA 33493

TELEPHONE: (407) 986-8072

*Willard, 10/31  
Are you handling  
this? Do we need  
to track it? Anybody  
else need copies?  
Patty*

October 24, 1988

Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RECEIVED

OCT 27 1988

Attn: Mr. Claire Fancy P.E.  
Deputy Chief  
Bureau of Air Quality Management

DER-BAQM

Subject: Boiler No. 4 Permit No. A0-50-92636  
Boiler No. 5 Permit No. A50-115245

Dear Mr. Fancy,

This is in response to your letter of August 25, 1988 concerning our request to increase the steam pressure and temperature for the two boilers mentioned above.

The changes to be made to each boiler is much less than half the cost of a new equivalent boiler as follows:

Boiler No. 4

Drums, headers and tubes	\$ 503,452.00
Safety valves	5,576.00
Saddle for upper drums and supports	1,075.00
Blow-off valves	11,438.00
Steam separators & internal piping for drums	13,478.00
Water columns	6,036.00
Miscellaneous valves	2,858.63
Miscellaneous gauges & thermometer	719.00
Brickwork	<u>33,175.00</u>

Sub Total	\$ 577,807.63
6% Sales Tax	34,668.00
5% Contingencies	<u>28,890.37</u>
	\$ 641,366.47
	=====

Boiler No. 5

Drums, headers and tubes	\$ 556,930.00
Safety valves	6,093.00
Saddles for upper drums & supports	1,075.00
Blow-off valves	11,438.00
Steam separators and interval piping for drums	13,478.00
Water Column	6,036.00
Miscellaneous valves	2,858.63
Miscellaneous gauges and thermometers	719.00
Brickwork	<u>33,175.00</u>

Sub Total	\$ 631,802.63
6% Sales Tax	37,908.16
5% Contingencies	<u>31,590.13</u>
	\$ 701,300.92
	=====

For back up to these figures please see attached copies of our P.O. Number FM-10026 to Alpha Boilers, Inc. and a quote from the same company for the brickwork to be preformed.

The cost of a new equivalent boiler as per Alpha Boilers, Proposal Number 88100-M dated September 13, 1988 is for \$2,375,000.00. Foundation, as well as scrubber and air pollution equipment are not included. See attached copy of their proposal.

We will continue to comply with all current permit restrictions other than steam temperature and pressure. There will be no increase in heat input and actual emissions.

The steam flow will not be increased in any of the boilers; on the contrary, since the objective of these changes are to save energy and fuel, the overall heat input and emissions will be less for these and all other boilers. Please note references to the attached schedule A.

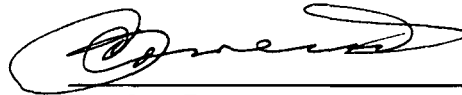
Schedule B is a back up of the calculations for the results shown in schedule A.

An analysis of the emissions is shown on schedule C also attached. For comparison purposes, calculations are based on permitting conditions and last years particulate emissions tests.

Page 3  
October 24, 1988

Please let us know if you need any additional information. Your prompt attention to this matter will be appreciated since we have started these new modifications by this coming month of March 1989 to have the boilers ready for the following crop.

Sincerely yours,



P. A. Carreno  
Mill & Refinery Operations

PAC: slg

xc: A. Kirstein, III  
F. Fernandez  
R. King  
G. Rodriguez  
D. Knowles W/Attachment  
DER S.F. District  
Ft. Myers, FL



September 6, 1988

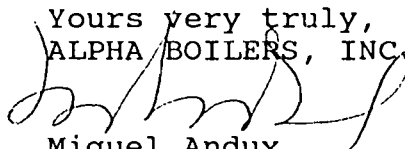
Okeelanta Corporation  
P.O. Box 86  
South Bay, FL.  
33493

Att: Mr. Pablo Carreño

As we have previously discussed there will necessarily be some refractory and insulation work to do on Boilers #4 & #5 and you have suggested that we handle this as a subcontract with a reliable mason contractor who is familiar with Okeelanta and these boilers. The baffles in particular must be installed as the new pressure parts are erected.

Accordingly we sent the attached inquiry to Reintjes (formerly Alert Division) and Plibrico and have received their proposals, on the basis of which we can quote you a price of \$ 66,350.00 for material and labor for the work which is described therein and which we know must be done (baffles, furnace roofs and boiler roofs). The prices quoted were very close so you can select which of these contractors you prefer.

For the furnace repair work, the scope of which cannot be ascertained until the old boilers are removed, the hourly labor prices are also very similar and the schedules of the two bidders are attached. If you wish to handle this work as a subcontract under our supervision we must add a mark-up of 10% to the charges of the mason contractor on this part of the work.

Yours very truly,  
ALPHA BOILERS, INC.  
  
Miguel Andux  
Exec. Vice-President

MA/mo  
Enclosure

Letter addressed to Plibrico and Reintjes

Gentlemen:

ALPHA BOILERS, INC. has a contract to furnish and erect new pressure parts (drums, headers and tubes) on Boilers No. 4 and No. 5 at Okeelanta Corp. during the 1989 dead season.

In making this change the old pressure parts will be removed through the roof but the existing boiler steel structure and settings will be left intact to the extent possible.

We enclose two (2) prints of our drawings 88100, sheets PPA-1, Rev.0(boiler #4) & PPA-2, Rev.0(boiler #5), showing the new arrangement from which it is obvious that the baffles between tubes 11-D and 12D, between 13D and 14D and above tubes 20-D and 21-D will be lost when the old boilers are removed. (Please note that the boiler bank baffles are materially different in No. 4 and No. 5, although the tube banks have the same configuration). The tile and insulation roof over the furnace and the red brick covering over tubes 17-D and 19-D between the steam drums will also be lost. New #12 ga. steel plate sheathing over tubes 17-D and 19-D will be supplied and erected by ALPHA.

We would like to have you give us a firm price for material and for labor to replace the specific areas listed above and as depicted on our drawings. Since the side walls will remain in place it will be necessary to cut a hole in one side wall through which to pass the tiles which make up the rear boiler bank baffle, then the baffle must be installed before the superheater tubes are put in place. The front baffle (between tubes 13-D and 14-D) cannot be installed this way so this erection work must be done as the tubes are rolled. The castable baffle over tube 21-D must be installed from below at this time while the brick and castable baffle over tube 20-D may be installed from above using the existing access door. Presumably you will have a mason available as this work proceeds as you will other repair work to do. (See below.)

The balance of the settings comprise Bigelow-Liptak suspended walls which have been in service for many years without any significant repairs in the areas shaded by the tubes. Some damage may occur in these zones during erection of the pressure parts and other areas where long term deterioration may have taken place may appear after the old tubes are removed. Clearly there is no means of ascertaining in advance how much repair work may be required, so this part of the contract must be cost-plus. Any such repair work must necessarily be done from outside the boiler as there will not be time to do so before erection of the new pressure parts.

The parts not shaded by the tubes (the furnaces) require more or less regular maintenance and of course there is no means to ascertain in advance what must be done next year, so this part must also be cost-plus.

In summary, we would like your lump sum quotation (for material and for labor) for the work which is definitely outlined above and your cost-plus terms and conditions

for the work for which the scope cannot be definitely established in advance. Please furnish us with a list of the insurance coverage you will provide. Okeelanta wants us to sublet the refractory work to a reliable contractor so that there is single responsibility for this job, which must without fail be completed in advance of the 1989 crop which will start in October of that year. Your work will probably be ready to start around the middle of May 1989.

Please note that insulation of the exposed new drums ends, headers and supply tubes will be carried out by others.

Please let us have your proposal by August , 1988.

Thank you for your kind cooperation in this matter. We remain,

Very sincerely yours,  
ALPHA BOILERS, INC.

Miguel Andux  
Exec. Vice-President

MA/mo  
Enclosure

# Reintjes

## COST PLUS PROPOSAL

<u>CLASSIFICATION</u>	<u>STRAIGHT TIME</u>	<u>OVER TIME</u>	<u>DOUBLE TIME</u>
SUPERINTENDENT	\$ 22.00	\$ 31.90	\$ 41.80
MASON FOREMAN	20.81	30.45	39.70
MASON	19.62	29.00	37.80
MASON-1	17.04	24.95	33.40
LABOR FOREMAN	12.20	17.85	23.30
LABOR	11.59	16.96	22.10

Overtime rates all crafts - time and one half except for Sunday and holidays.

Per diem \$40.00 per day including lodging.

Mason-1 is training journeyman mason.

Shop costs @ \$50.00 per day.



**BEST AVAILABLE COPY**

**PLIBRICO SALES & SERVICE COMPANY**

**LABOR RATES**

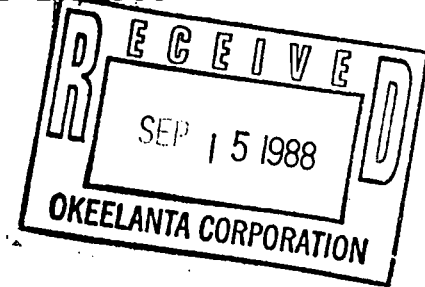
EFFECTIVE JUNE 1, 1988 THRU 12/31/88

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Foreman	\$28.80
Time & 1/4	41.07
Double Time	53.31
Mechanic	25.99
Time & 1/4	36.84
Double Time	47.67
Apprentice 1st Class	23.82
Time & 1/4	33.60
Double Time	43.35
Apprentice 2nd Class	21.66
Time & 1/4	30.32
Double Time	38.99
<u>LABORERS:</u>	
Local 519	\$17.48
Time & 1/4	24.55
Double Time	31.60
Local 517	17.05
Time & 1/4	24.17
Double Time	31.29
Local 478	15.56
Time & 1/4	22.40
Double Time	29.25
Non-Union	13.32
Time & 1/4	19.37
Double Time	25.41
Truck Drivers	15.74
Time & 1/4	22.99



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

REQUISITIONER <b>A. Padron</b>	DELIVER TO <b>Okeelanta Corp.</b>	APPROVED BY 	APPROVED BY 	APPROVED BY	REQUISITION DATE <b>6/6/88</b>
ACCOUNT NUMBER	EST. VALUE	DATE REQUIRED	SUGGESTED SUPPLIER	ADDRESS	REQUISITION NUMBER

# OKEELANTA CORPORATION

SOUTH BAY, FLORIDA 33493

Page 6 of 66

**FM - 10026**  
**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.: (305) 996-9072

**ACKNOWLEDGMENTS AND INQUIRIES TO:**

AMERICA'S EXPORT CORP. (OKEELANTA)  
 2600 S.W. 3RD AVE., (CORAL WAY)  
 TERREMARK BLDG., SUITE 300  
 MIAMI, FL 33129 • TEL. (305) 856-7192

DATE	SHIP VIA	TERMS	DELIVERY PROMISED	F.O.B. <input type="checkbox"/> DELIVERY POINT <input type="checkbox"/> SHIPPING POINT
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ITEM	STOCK NO	ACCT NO	QUANTITY AND UNIT	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
			2 Ea.	Continued - Item III check screw, gauge cock and siphon. Super-heater thermometer with stainless steel wall. Price \$719.00 Per set EACH	719.00	1538.00
				All components, drums, tubes, etc. shall be at the job site by <del>March 12, 1988</del> <b>SEE CONTRACT</b> Dismantling and erection of all pressure parts shall be completed by <del>August 12th 1989</del> <b>SEE CONTRACT</b> <i>2.3 week from STARTING DATE</i>		
				Alpha Boilers Inc. shall submit a C.P.M. schedule on fabrication and erection of Boiler components <b>TO MEET THE August 12, 1989 completion date</b> All pressure parts shall be in compliance with the A.S.M.E. Code. ALPHA BOILERS INC shall submit the proper S and A stamps upon request.		
				Any substitution of sub-contractors are to be approved by Okeelanta Corporation.		

**REQUISITIONER'S INSTRUCTIONS**

1. Fill in requested info only.
2. Items listed must be available from same supplier.
3. Use typewriter or ball point pen.
4. Incomplete or illegible requisitions will be returned.

**VENDOR INSTRUCTIONS**

1. Submit all invoices in duplicate.
2. No C.O.D. shipments will be accepted.

AUTHORIZED SIGNATURE  
 ROBERTO SUERO

THIS FORM IS A REQUISITION ONLY UNTIL COMPLETED AND SIGNED BY THE PURCHASING DEPT.

**PURCHASING**

REQUISITIONER A. Padron	DELIVER TO Okeelanta Corp.	APPROVED BY <i>[Signature]</i>	APPROVED BY <i>[Signature]</i>	APPROVED BY <i>[Signature]</i>	REQUISITION DATE 6/6/88
ACCOUNT NUMBER 3515 516	EST. VALUE \$1,143,260.26	DATE REQUIRED	SUGGESTED SUPPLIER Alpha Boilers, Inc.	ADDRESS	REQUISITION NUMBER

# OKEELANTA CORPORATION

SOUTH BAY, FLORIDA 33493

**FM - 10026**  
PURCHASE ORDER NO.

This P.O. No. must appear on all invoices, packages and shipping papers.

FLA. STATE SALES TAX \_\_\_\_\_ YES \_\_\_\_\_ NO EXEMPTION NUMBER

Alpha Boilers Inc.  
2655 Lajeune Rd. Suite 800  
Coral Gables, FL 33134  
Attn: Mr. Miguel Andux  
442-2233  
445-9125

**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.: (305) 996-9072

**ACKNOWLEDGMENTS AND INQUIRIES TO:**

AMERICA'S EXPORT CORP. (OKEELANTA)  
626 NORTH DIXIE HWY.  
WEST PALM BEACH, FL. 33401  
TEL.: (305) 659-6449

\$75,000.00 with purchase order balance against

DATE	SHIP VIA Motor Freight	TERMS: deliveries of equipment and progress reports or erection. All invoices to be per cash.	DELIVERY PROMISED	F.O.B. Okeelanta <input checked="" type="checkbox"/> DELIVERY POINT <input type="checkbox"/> SHIPPING POINT
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ITEM	STOCK NO.	ACCT NO.	QUANTITY AND UNIT	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
1				To Furnish all the materials, equipment and erection to convert Boilers #4 & #5 To 450 Psig Design pressure (350 Psig) operating pressure) and 650°F steam temperature: as described in ALPHA Proposal No. 88100 dated Feb. 26, 1988 Addendum I and II, 888 Alternate I and II and Addendum II May 3, 1988		
				(Item 1) Per Feb. 26, 1988 Proposal		
				Boiler #4 Drums, headers and tubes:		
				i.d. shellplate thickness approx. dimension tang-tangent approx. weight		
				Uptake Drum 36" 1 1/16" 31'-0"		5 Lb
				Middle Drum 42" 1 1/2" 33'-0"		20,129 Lb
				Down Take Drum 36" 1 1/16" 31'-0"		13,755 Lb
				Lower Drum 36" 1 1/16" 28'-0"		13,267 Lb
				Water Wall Header 10" .593" Various		3252 Lbs
				Superheater Headers 12" .688" 32'-0"		5670 Lbs
				(1) Superheater Sub. Pipe 10" .365" 11'-0"		446 Lbs
				(1) Set boiler and supply tubes (54 wide 3 1/2" x .135" and 4" x .165" SA-178-A		

**REQUISITIONER'S INSTRUCTIONS**

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- Use typewriter or ball point pen.
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**VENDOR INSTRUCTIONS**

- Submit all invoices in duplicate.
- No C.O.D. shipments will be accepted.

REC'D JUN 10 1988

AUTHORIZED SIGNATURE

THIS FORM IS A REQUISITION ONLY UNTIL COMPLETED AND SIGNED BY THE PURCHASING DEPT.

PURCHASING

REQUISITIONER A. Padron	DELIVER TO Okeelanta Corp.	APPROVED BY <i>[Signature]</i>	APPROVED BY <i>[Signature]</i>	APPROVED BY <i>[Signature]</i>	REQUISITION DATE 6/6/88
ACCOUNT NUMBER	EST. VALUE	DATE REQUIRED	SUGGESTED SUPPLIER	ADDRESS	REQUISITION NUMBER

**OKEELANTA CORPORATION**  
SOUTH BAY, FLORIDA 33493

Page 2 of 6

**FM - 10026**  
**PURCHASE ORDER NO.**  
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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.: (305) 996-9072

**ACKNOWLEDGMENTS AND INQUIRIES TO:**

AMERICA'S EXPORT CORP. (OKEELANTA)  
2600 S.W. 3RD AVE., (CORAL WAY)  
TERREMARK BLDG., SUITE 300  
MIAMI, FL 33129 • TEL. (305) 856-7192

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
				Continued. Boiler #4 Drums, headers & tubes (1) Set superheater tubes (33 wide) 1 3/4" x .135" SA-178-A 53 sets superheater tube ties stainless steel Erection of the foregoing components including erection of new or existing boiler trim (safety valves, water column, blow-off valves, etc.). The use of crane shall be provided by Okeelanta for the heavy lifts. Price \$503,452.00 Price includes: drum, headers and tubes @ \$412,552.00 & erection \$90900.00		
				Boiler #5 Drums, headers and tubes		
				Uptake Drum 36" <sup>1/8"</sup> shellplate thickness 1 1/16" approx. dimension tang-tangent 34'-0" approx. weight 14,981 Lbs.		
				Middle Drum 42" 1 1/8" 36'-0" 21,811 Lbs		
				Downtake Drum 36" 1 1/16" 34'-0" 14,981 Lbs		
				Lower Drum 26" 1 1/8" 31'-0" 14,566 Lbs		
				Water Wall Headers 10" .593" Various 3455 Lbs		
				Superheater Headers 12" .593" 35'-0" 6202 Lbs		
				(1) Superheater S. Pipe 10" .365" 11'-0" 446 Lbs		
				(1) Set boiler and supply tubes (60 wide) 3 1/4" x .135" and 4" x .135" SA-178-A		

**REQUISITIONER'S INSTRUCTIONS**

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- Items listed must be available from same supplier.
- Use typewriter or ball point pen.
- Incomplete or illegible requisitions will be returned.

**VENDOR INSTRUCTIONS**

- Submit all invoices in duplicate.
- No C.O.D. shipments will be accepted.

REC'D JUN 10 1988

*[Signature]*  
AUTHORIZED SIGNATURE

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PURCHASING

REQUISITIONER A. Padron	DELIVER TO Okeelanta Corp.	APPROVED BY 	APPROVED BY 	APPROVED BY	REQUISITION DATE 6/6/88
ACCOUNT NUMBER	EST. VALUE	DATE REQUIRED	SUGGESTED SUPPLIER	ADDRESS	REQUISITION NUMBER

# OKEELANTA CORPORATION

SOUTH BAY, FLORIDA 33493

Page 3 of 6

**FM - 10026**  
**PURCHASE ORDER NO.**  
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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.: (305) 996-9072

**ACKNOWLEDGMENTS AND INQUIRIES TO:**

AMERICA'S EXPORT CORP. (OKEELANTA)  
 2600 S.W. 3RD AVE., (CORAL WAY)  
 TERREMARK BLDG., SUITE 300  
 MIAMI, FL 33129 • TEL. (305) 856-7192

DATE	SHIP VIA	TERMS:	DELIVERY PROMISED	F.O.B. <input type="checkbox"/> DELIVERY POINT <input type="checkbox"/> SHIPPING POINT
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ITEM	STOCK NO	ACCT NO	QUANTITY AND UNIT	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
				Continued Boiler #5 Drums, headers & tubes		
				(1) Set super heater tubes (59 wide) 1 3/4" x .135" SA-178-A		
				59 sets superheater tube ties stainless steel. Erection of the foregoing components including erection of new or existing boiler trim (safety valves, water column, blow-off valves, etc.). The use of a crane shall be provided by Okeelanta for the heavy lifts.		
				Price \$556,930.00 Price includes: drum, headers, & tubes (Item II) Ver Feb 28, 1988 Proposal @ \$460,130.00 & erection @ \$96,800.00		
				Boiler #4 Safety Valves		
				1-2" Consolidated 1811 KC-6000		
				2-2 1/2" Consolidated 1811 LA-600#		
				3 - Gags		
				Price \$5,576.00 LOT		\$5576.00
				Boiler #5 Safety Valves		
				1-2 1/2" Consolidated 1811 LC		
				2-2 1/2" Consolidated 1811 LA		
				3-Gags		
				Price 6,093.00 LOT		6093.00

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REC'D JUN 10 1988

AUTHORIZED SIGNATURE

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PURCHASING

REQUISITIONER A. Padron	DELIVER TO Okeelanta Corp.	APPROVED BY <i>[Signature]</i>	APPROVED BY <i>[Signature]</i>	APPROVED BY	REQUISITION DATE 6/6/88
ACCOUNT NUMBER	EST. VALUE	DATE REQUIRED	SUGGESTED SUPPLIER	ADDRESS	REQUISITION NUMBER

**OKEELANTA CORPORATION**  
SOUTH BAY, FLORIDA 33493

Page 4 of 6

**FM - 10026**  
**PURCHASE ORDER NO.**  
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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.: (305) 996-9072
- ACKNOWLEDGMENTS AND INQUIRIES TO:**
- AMERICA'S EXPORT CORP. (OKEELANTA)  
2600 S.W. 3RD AVE., (CORAL WAY)  
TERREMARK BLDG., SUITE 300  
MIAMI, FL 33129 • TEL. (305) 856-7192

DATE	SHIP VIA	TERMS:	DELIVERY PROMISED	F.O.B.	<input type="checkbox"/> DELIVERY POINT	<input type="checkbox"/> SHIPPING POINT
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ITEM	STOCK NO.	ACCT. NO.	QUANTITY AND UNIT	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
				(Item III) Per Feb. 26, 1988 Proposal		
				<u>Boiler #4</u>		
				3 sets saddles for upper drums and structural supports for pendant superheater (type A036 steel) Price \$1,075.00 LOT		\$1075.00
				<u>Boiler #5</u>		
				3 sets saddles for upper drums and structural supports for pendant superheater (type A-36 Steel)		
				Price \$1,075.00 LOT		1075.00
				<u>Addendum I - Per April 25, 1988 Proposal</u>		
				<u>Addendum I - Blow-off Valves</u>		
				2 sets Demister type double screens with blow-off valves and 8 sets 2 1/2" straightway and angle header blow-off valves, suitable for 450 psig design pressure, Edwards or equal. Price \$22,876.00 LOT		22876.00
				<u>Alternate II - Steam Separators and Internal Piping for Steam Drums.</u>		
				2 sets Demister type double screens with enclosure, baffles and feedwater, continuous blowdown and chemical piping. Price \$86,956.00 LOT		26956.00

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**VENDOR INSTRUCTIONS**

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REC'D JUN 10 1988

*[Signature]*

*[Signature]*  
AUTHORIZED SIGNATURE

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PURCHASING



REQUISITIONER A. Padron	DELIVER TO Okeelanta Corp.	APPROVED BY 	APPROVED BY 	APPROVED BY	REQUISITION DATE 6/6/88
ACCOUNT NUMBER	EST. VALUE	DATE REQUIRED	SUGGESTED SUPPLIER	ADDRESS	
					REQUISITION NUMBER

# OKEELANTA CORPORATION

SOUTH BAY, FLORIDA 33493

**FM - 10026**  
**PURCHASE ORDER NO.**

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Page 5 of 6

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.: (305) 996-9072

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2600 S.W. 3RD AVE., (CORAL WAY)  
TERREMARK BLDG., SUITE 300  
MIAMI, FL 33129 • TEL. (305) 856-7192

DATE	SHIP VIA	TERMS	DELIVERY PROMISED	F.O.B.	<input type="checkbox"/> DELIVERY POINT	<input type="checkbox"/> SHIPPING POINT
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ITEM	STOCK NO	ACCT. NO.	QUANTITY AND UNIT	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
Addendum II - Per May 3, 1988 Proposal						
				<u>Item I</u>		
			2 ea	Water Column for 450 psig design pressure with whistle type alarm (similar to present water column) and 2 water gauges, complete with drain valves Price \$6,036.00 EACH		<del>XXXXXX</del> 12072.00
				<u>Item II</u>		
			2 sets	Miscellaneous valves suitable for 450 psig design pressure as follows:		
				1/4" Hancock 5500-S Steam gagges shut-off valve	\$ 44.30	\$88.60
				1" Hancock 5500-S sample valve	63.37	126.74
				1" Hancock 5500-S drum vent valve	63.37	126.74
				1" Hancock 5500-S Superheater vent valve	63.37	126.74
				1" Hancock 5500-S Superheater drain valve	63.37	126.74
				1" Hancock 5505-S continuous blowdown valve	555.02	1110.04
				5/16 orifice		
				3" Hancock Feedwater swing check	2005.83	4011.66
			2 sets	<u>Item III</u>	Total..	\$5717.26
				Weksler steam pressure gauge 0/600 psig with		

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REC'D JUN 10 1988

AUTHORIZED SIGNATURE

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PURCHASING

SCHEDULE A

OKEELANTA CORPORATION.  
Change to boilers 4 and 5

Reduction of steam usage under proposed conditions

UNDER PRESENT CONDITIONS (250psig/550 deg. Far/25 psig)				TANDEM B	UNDER PROPOSED CONDITIONS (350psig/650 deg. Far/25 psig)			
STEAM CONSUMPTION (lbs/hr)	ESTIMATED LOAD (hp)	PLWR (#/hp-hr)	FLWR (#/hp-hr)	TURBINE No	FLWR (#/hp-hr)	PLWR (#/hp-hr)	ESTIMATED LOAD (hp)	STEAM CONSUMPTION (lbs/hr)
14,472	480	30.15	26.80	KN 1	21.00	23.63	480	11,340
14,472	480	30.15	26.80	KN 2	21.00	23.63	480	11,340
20,231	671	30.15	26.80	M1	21.00	23.63	671	15,852
20,231	671	30.15	26.80	M2	21.00	23.63	671	15,852
20,231	671	30.15	26.80	M3	21.00	23.63	671	15,852
20,231	671	30.15	26.80	M4	21.00	23.63	671	15,852
22,646	671	33.75	30.00	M5	21.00	23.63	671	15,852
22,646	671	33.75	30.00	M6	21.00	23.63	671	15,852
155,159	-----			TOTAL	-----			117,794

Savings in steam usage under proposed conditions      24.08%

NOTES:

PLWR      ----- Partial load water rate

FLWR      ----- Full load water rate

PLWR = FLWR X 1.125

LOAD CALCULATIONS.

Knives      417 tons of cane per hour x 11.5 % fiber x 10 hp/ton fiber per hour = 480 hp/unit

Mills      417 tons of cane per hour x 11.5 % fiber x 14 hp/ton fiber per hour = 671 hp/unit

SCHEDULE B

OKEELANTA CORPORATION  
CHANGES TO BOILERS 4 AND 5

CALCULATIONS

ACTUAL EMISSIONS

Pressure 250 psig. temp. 550 deg. Farh.

	BOILER 4	BOILER 5	
ACTUAL EMISSIONS (LBS/HR)	38.69	52.56	(1) Obtained from 1987-88 test

PROPOSED EMISSION CALCULATIONS

Pressure 350 psig. temp. 650 deg Farh.

	BOILER 4	BOILER 5	
ENTHALPY OF STEAM PROPOSED COND. (BTU/LBS)	1,337.50	1,337.50	(2)
ENTHALPY OF STEAM ACTUAL COND. (BTU/LBS)	1,290.00	1,290.00	(3)
ENTHALPY RISE (BTU/LBS)	47.50	47.50	(4) (2)-(3)
STEAM GENERATION (LBS/HR)	94,000	122,000	(5)
EQUIVALENT EFFIC. 55% (LBS/HR)	170,909	221,818	(6) (5)/0.55
INPUT REQUIRED (BTU E6/HR)	8.12	10.54	(7) (6) x (4) / 1,000,000
EMISSION (LBS/BTU E6)*	.196	.201	(8) Obtained from 1987-88 test
INCREMENTAL EMISSION (LBS/HR)	1.59	2.12	(9) (7) x (8)
PROPOSED EMISSION (LBS/HR)	40.28	54.68	(10) (1) + (9)
EQUIVALENT IN TONS/YEAR	67.67	91.86	

*Handwritten notes:*  
 (227.6 mm BTU/hr) for 2  
 (220.5 mm BTU/hr) for 3  
 286.1 mm BTU/hr  
 90,662 #/hr  
 (220.5 mm BTU/hr)  
 0.175 BTU/mm BTU  
 + 38.69 #/hr  
 113,649 #/hr  
 286.1 mm BTU/hr  
 0.184 #/mm BTU  
 380/650 steam

*Unchanged test*

*Increased*

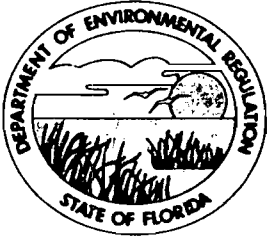
SCHEDULE C

OKEELANTA CORPORATION  
CHANGES TO BOILERS 4 AND 5

PARTICLE EMISSION ANALYSIS (TONS/YEAR)

BOILER No	<i>permitted TPY</i> (1)	<i>Actual TPY</i> (2)	<i>Proposed TPY</i> (3)	<i>Proposed TPY with higher steam demand.</i> (4)
4	91.43	65.00	67.67	64.83
5	118.66	88.30	91.86	88.01
6	121.58	60.51	60.51	60.51
10	84.67	72.07	72.07	69.05
11	84.67	53.21	53.21	50.97
12	101.62	101.61	101.61	97.35
14	101.62	87.26	87.26	83.60
15	84.67	65.17	65.17	61.73
	-----	-----	-----	-----
	788.93	593.13	599.36	576.06

- (1) Maximum allowed emissions (tons/year) based on current permits.
- (2) Theoretical emissions for last year, based on actual emission rate and maximum allowable time of operation.
- (3) Same as column (2) with boilers 4 and 5 corrected for emissions based on new temperature and pressure.
- (4) Same as column (3) with high pressure boilers corrected for savings in steam demand.



## 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.

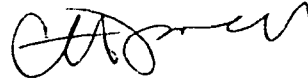
If the cost of tubes, headers, and drum exceed 50 percent of the cost of a new equivalent boiler or the emissions of any pollutant from the boiler increases, the change will require a new permit to construct. The regulations that the boiler modification would be subject to are determined by the magnitude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

If 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.

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP		ACTION NO	
		ACTION DUE DATE	
1. TO: (NAME, OFFICE, LOCATION)	<i>Nicklas Hanks, BAQM</i>	Initial	
		Date	
2.	<i>Dallabauer</i>	Initial	
		Date	
3.		Initial	
		Date	
4.		Initial	
		Date	

REMARKS:

**RECEIVED**

NOV 4 1988

DER - BAQM

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:

*David K. Howell*  
*Fort Myers*

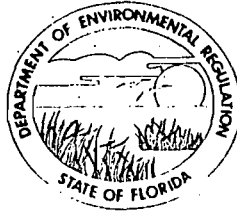
DATE

*11/2/88*

PHONE

*721-7900*

2180 WEST FIRST STREET  
SUITE 401  
FORT MYERS, FLORIDA 33901



BOB GRAHAM  
GOVERNOR

JACOB D. VARN  
SECRETARY

PHILIP R. EDWARDS  
DISTRICT MANAGER

STATE OF FLORIDA

**DEPARTMENT OF ENVIRONMENTAL REGULATION**

**SOUTH FLORIDA DISTRICT**

August 13, 1980

Mr. Arthur Kirstein, III  
Executive Vice President  
Gulf + Western Food Products Co.  
P.O. Box 86  
South Bay, FL 33493

CERTIFIED MAIL NO. P09 5346991  
RETURN RECEIPT REQUESTED

**RECEIVED**

NOV 4 1988

Re: Palm Beach Co. - AP ✓  
Gulf + Western  
Boilers #4, #5, #11

Dear Mr, Kirstein:

**DER-BAQM**

A review has been conducted of the stack tests performed on the above referenced boilers. Inasmuch as the steam production during the test was less than ninety percent (90%) of the boiler design capacity, the permits issued are being amended to include a steam production limitation.

In reviewing the files for boilers #4 and #5, it was noted that the permit numbers were issued incorrectly. Accordingly, the numbers will be changed to reflect the construction, rather than operation, status of these permits.

Boiler #4 (AC50-6585) is amended as follows:

- 1) Permit number is changed from AO50-6585 to AC50-6585.
- 2) Specific Condition #11 - this boiler shall not be operated at steam production rates exceeding 80,400 lbs./hr. on an hourly average.

Boiler #5 (AC50-6595) is amended as follows:

- 1) Permit number is changed from AO50-6595 to AC50-6595.
- 2) Specific Condition #11 - this boiler shall not be operated at steam production rates exceeding 101,600 lbs./hr. on an hourly average.



Arthur Kirstein - Gulf + Western  
August 13, 1980  
Page 2

Boiler #11 (A050-6617) is amended as follows:

Specific Condition No. 7 - this boiler shall not be operated at steam production rates exceeding 109,500 lbs./hr. on an hourly average.

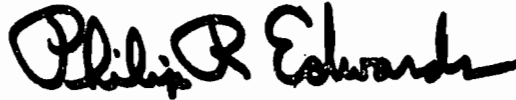
All other conditions of these permits remain as issued.

Should you object to this permit, including any and all of the conditions contained therein, you may file an appropriate petition for administrative hearing. This petition must be filed within fourteen (14) days of the receipt of this letter. Further, the petition must conform to the requirements of Section 28-5.201, Florida Administrative Code, (attached). The petition must be filed with the Office of General Counsel, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32301.

If no petition is filed within the prescribed time, you will be deemed to have accepted this permit and waived your right to request an administrative hearing on this matter.

Your cooperation in this matter will be appreciated.

Sincerely,



Philip R. Edwards  
District Manager

PRE/TWD/lc

cc: Palm Beach County Health Dept.

Attachment

2180 WEST FIRST STREET  
SUITE 401  
FORT MYERS, FLORIDA 33901



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

PHILIP R. EDWARDS  
DISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTH FLORIDA DISTRICT

May 13, 1980

Mr. Arthur Kirstein, III  
Executive Vice-President  
Gulf & Western Food Products Co.  
P. O. Box 86  
South Bay, Fl 33493

RE: Palm Beach Co. - AP  
Gulf & Western  
Boilers #4/ #5

Dear Mr. Kirstein:

Enclosed is Permit Number # A050-6585 and # A050-6595, dated May 12, 1980 to construct the subject pollution source, issued pursuant to Section 403, Florida Statutes.

Should you object to this permit, including any and all of the conditions contained therein, you may file an appropriate petition for administrative hearing. This petition must be filed within fourteen (14) days of the receipt of this letter. Further, the petition must conform to the requirements of Section 28-5.15, Florida Administrative Code, (see reverse side of this letter). The petition must be filed with the Office of General Counsel, Department of Environmental Regulation, Twin Towers Office Building, 2800 Blair Stone Road, Tallahassee, Florida 32301.

If no petition is filed within the prescribed time, you will be deemed to have accepted this permit and waived your right to request an administrative hearing on this matter.

Acceptance of the permit constitutes notice and agreement that the Department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement action for violation of the conditions and requirements thereof.

Sincerely,

Philip R. Edwards  
District Manager

PRE/TWD/lp

Enclosure

RULES OF THE ADMINISTRATIVE COMMISSION  
MODEL RULES OF PROCEDURE  
CHAPTER 28-5  
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

- (1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.
- (2) All petitions filed under these rules should contain:
  - (a) The name and address of each agency affected and each agency's file or identification number, if known;
  - (b) The name and address of the petitioner or petitioners;
  - (c) All disputed issues of material fact. If there are none, the petition must so indicate;
  - (d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;
  - (e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;
  - (f) A demand for the relief to which the petitioner deems himself entitled; and
  - (g) Such other information which the petitioner contends is material.

cc: DER Tallahassee  
Angel Tellechea, P.E.  
Palm Beach Co. Health Dept.



STATE OF FLORIDA  
DEPARTMENT OF  
ENVIRONMENTAL REGULATION

CONSTRUCTION  
PERMIT

NO. AO50-6585

GULF & WESTERN FOOD PRODUCTS CO.  
Boiler #4

DATE OF ISSUANCE

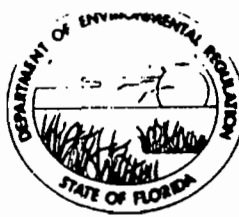
May 12, 1980

DATE OF EXPIRATION

December 31, 1980

PHILIP R. EDWARDS  
District Manager

2180 WEST FIRST STREET  
SUITE 401  
FORT MYERS, FLORIDA 33901



BOB GRAHAM  
GOVERNOR

JACOB D. VARN  
SECRETARY

PHILIP R. EDWARDS  
DISTRICT MANAGER

STATE OF FLORIDA

## DEPARTMENT OF ENVIRONMENTAL REGULATION

### SOUTH FLORIDA DISTRICT

APPLICANT:

Arthur Kirstein III  
Executive Vice-President  
Gulf & Western Food Products Co.  
P. O. Box 86  
South Bay, Fl 33493

PERMIT/CERTIFICATION  
NO. A050-6585

COUNTY: Palm Beach

PROJECT: Boiler #4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2,  
and 17-4, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and made a part hereof and specifically described as follows:

Replacement of existing control system on Boiler #4 with one (1) Ducon Multivane Scrubber Model II, Size 180.

Subject to the following thirteen (13) General and ten (10) Specific Conditions.

PERMIT NO.: AO50-6585  
APPLICANT: Arthur Kirstein, III

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions", and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate court action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.

3. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information: (a) a description of and cause of non-compliance; and (b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

4. As provided in subsection 403.087(6), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.111, F.S.

7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

8. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant, or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

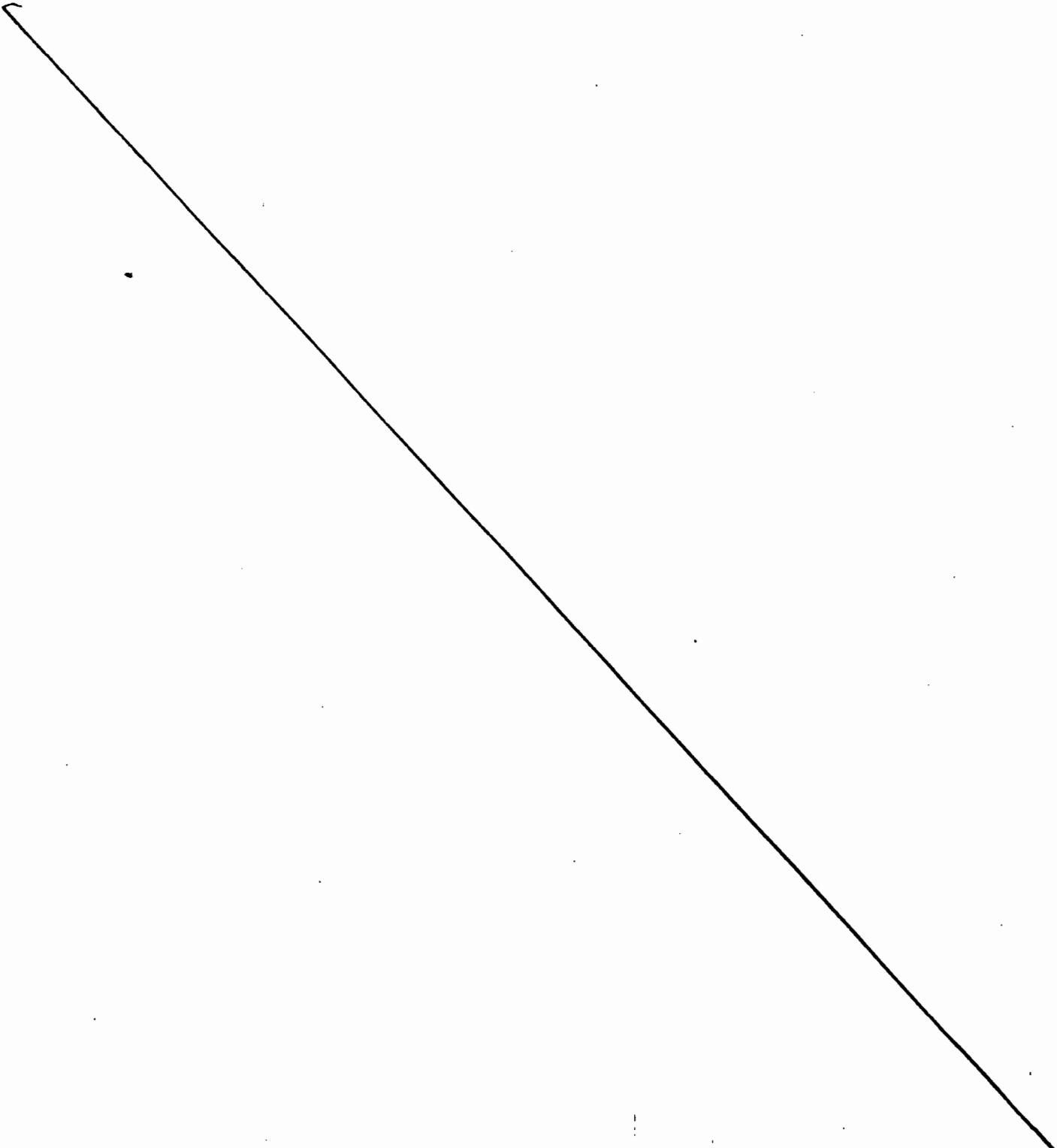
13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

PERMIT NO.: AO50-6585  
APPLICANT: Arthur Kirstein, III

**SPECIFIC CONDITIONS:**

1. Construction of this installation shall be completed by October 31, 1980. Application for Permit to Operate to be submitted by December 1, 1980.
2. This construction permit expires on December 31, 1980 following an initial period of operation for appropriate testing to determine compliance with the Rules of the Florida Environmental Regulation Board.
3. All applicable rules of the Department including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction.
4. The applicant shall continue the retention of the engineer of record for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. A report of such inspection shall be submitted by the engineer to the Dept. of Environmental Regulation for consideration toward the issuance of an operation permit.
5. This boiler shall be tested for particulate matter within 30 days after it is placed in operation. These test results are required prior to our issuance of an operation permit and shall be submitted in duplicate to the DER SOUTH FLORIDA DISTRICT OFFICE, 2180 West First Street, Suite 401, Fort Myers, Florida 33901.
6. Satisfactory ladders, platforms, and other safety devices shall be provided/available as well as necessary ports to facilitate the carrying out of an adequate sampling program - see attached guidelines.
7. All fugitive dust generated at this site shall be adequately controlled.
8. The control system shall be equipped with instrumentation to monitor total pressure drop and inlet water pressure.
9. Drawings, plans, documents or specifications submitted by the permittee, not attached hereto, but retained on file at the South Florida District Office, are made a part hereof.
10. Emissions from this facility shall not exceed the following limitations:
  - (a) Particulate Matter - 0.30 pounds per million BTU's of carbonaceous fuel heat input plus 0.10 pounds per million BTU's of fossil fuel heat input.
  - (b) Opacity - 30 percent except that up to 40 percent is permissible for not more than two minutes in any one hour.

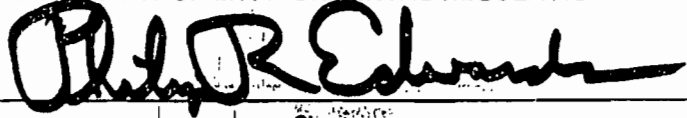


Expiration Date: December 31, 1980

Issued this 12th day of May, 19 80

                     Pages Attached.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



Signature

PAGE 4 OF 4

PHILIP R. EDWARDS  
District Manager





BOILER NO. 4

RECEIVED  
MAR 12 1980

(16)

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

DISTRICT

PAID JAN 18 1980  
6585

APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES

SOURCE TYPE: \_\_\_\_\_ ( ) New<sup>1</sup> (x) Existing<sup>1</sup>  
APPLICATION TYPE: ( ) Construction ( ) Operation ( ) Modification  
G+W Food Products Co.  
COMPANY NAME: Okeelanta Sugar Division COUNTY: Palm Beach

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired)

\_\_\_\_\_ 4 miles west of U.S. 27  
SOURCE LOCATION: Street 8 miles S.W. of South City South Bay, Florida

UTM: East 17-524.9 Km. E North 2939.5 KM N.  
Latitude 26° 35' 00" N Longitude 80° 45' 00" W

APPLICANT NAME AND TITLE Arthur Kirstein, III, Executive Vice-President

APPLICANT ADDRESS P.O. Box 86, South Bay, Florida 33493

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Gulf + Western Food Products Company  
I certify that the statements made in this application for a Modification permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

Signed: K. H. Kirstein

Arthur Kirstein, III-Executive Vice-President  
Name and Title ( Please Type)

\*Attach letter of authorization Date: 3-7-80 Telephone No. (305)996-9072

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed: [Signature]

Angeli Tellechea  
Name ( Please Type)

(Affix Seal)

Gulf + Western Technology Corporation  
Company Name ( Please Type)

P.O. Box 86, South Bay, Florida 33493  
Mailing Address ( Please Type)

Florida Registration No. 12343 Date: 3-7-80 Telephone No. (305)996-9072  
<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

BEST AVAILABLE COPY

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

The proposed project consists of replacing two existing Joy Impinger Scrubbers Model 56-D by one Ducon Multivane Model 11 Size 180 made out of 7 gauge 316 L.S.S. The project will result in full compliance. This is going to be the same modification that we made in Boiler #6 and that has improved the performance of such source.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction May 1980 Completion of Construction October 1980

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Table with 2 columns: Item description and Cost. Item 1: Structural steel, duct work and concrete foundation \$40,000.00. Item 2: Ducon Multivane Scrubber, including chimney, test, platforms, piping installation \$210,000.00.

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Table with 4 columns: Boiler #, Permit #, Issuance, Expiration. Row 1: 4, A050-5885, September 11, 1979, September 11, 1984.

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? Yes No [X]

F. Normal equipment operating time: hrs/day 24; days/wk 7; wks/yr -; if power plant, hrs/yr 3600; if seasonal, describe:

G. If this is a new source or major modification, answer the following questions. (Yes or No)

- 1. Is this source in a non-attainment area for a particular pollutant? a. If yes, has "offset" been applied? b. If yes, has "Lowest Achievable Emission Rate" been applied? c. If yes, list non-attainment pollutants.
2. Does best available control technology (BACT) apply to this source? If yes, see Section VI.
3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI & VII.
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

3)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES  
(Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
N/A	N/A	N/A	N/A	N/A

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 45,854 lb/hr of bagasse

2. Product Weight (lbs/hr): 94,000 lbs/hr of steam @250 psig at 550° FTT

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission lbs/hr   T/yr		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	lbs/hr	
Particulate	49.5	89.1	0.3# MBTU/HR	51.91	369.0	664.2	
Sulphur Dioxide	28.89	52.0			28.89	52.0	
Sulphur Trioxide	0.368	0.66			0.368	0.66	
Carbon Mono oxide	46.32	83.88			46.32	83.38	
Hydro Carbon's CH <sub>4</sub>	45.95	82.71			45.95	82.71	
Nitrogen Oxide No2	38.74	69.73			38.74	69.73	

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec.V, It5)
Ducon Multivane				
Scrubber Model II				
Size 180	Particulate	86.59%	0.3-10.0 & greater	

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E.(1), F.A.C. -- 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

\*\* Contaminants emitted based on burning 92 gallons of oil and 22.93 tons of bagasse per hour.



E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
54.9% Moisture Bagasse	22,927	45,854	168.42 x 10 <sup>6</sup>
2% Bunker C #6	1.093	2.186	13.76 x 10 <sup>6</sup>

\*Units Natural Gas,MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis: Fuel Oil Bagasse analysis: See Test Report Attached

Percent Sulfur: 2.0 Percent Ash: \_\_\_\_\_

Density: 8.1 lbs/gal Typical Percent Nitrogen: .5

Heat Capacity: 18,500 BTU/lb 149,850 BTU/gal

Other Fuel Contaminants (which may cause air pollution): None

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average N/A Maximum N/A

G. Indicate liquid or solid wastes generated and method of disposal.

All liquid or solid wastes generated are contained in controlled ponds.\*\*

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 62.5 ft. Stack Diameter: 7'-6" ft.

Gas Flow Rate: 79,607 ACFM Gas Exit Temperature: 152 °F.

Water Vapor Content: 23 % Velocity: 33.33 FPS

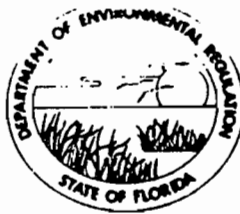
\*\* Blow down water from the boiler will be discharged containing:

P. Alkalinity	PPM	as C	CO <sub>3</sub>	=	200-600
Hydrate Alkalinity	PPM	as C <sub>a</sub>	CO <sub>3</sub>	=	20-600
Chloride	PPM	as Cl		=	0-150
Phosphate	PPM	as PO <sub>4</sub>		=	30-150
Sulphate	PPM	as SO <sub>3</sub>		=	30-50
Total dissolved solids	PPM			=	1850-2500

The blow down water from the boiler will be discharged into the main mill waste ditch. This waster is to flood the cane fields and it is impounded and controlled within the farms private land.

Approximately 400 GPM of Slurry from the Scrubber will be discharged into the mail mill waste ditch and used to flood the cane fields, and it will be impounded and controlled within the farms private land.

3140 WEST FIRST STREET  
SUITE 401  
FORT MYERS, FLORIDA 33901



BOB GRAHAM  
GOVERNOR

JACOB D. VARN  
SECRETARY

PHILIP R. EDWARDS  
DISTRICT MANAGER

STATE OF FLORIDA

**DEPARTMENT OF ENVIRONMENTAL REGULATION**  
**SOUTH FLORIDA DISTRICT**

APPLICANT:

Arthur Kirstein, III  
Executive Vice-President  
Gulf & Western Food Products Co.  
P. O. Box 86  
South Bay, Fl 33493

PERMIT/CERTIFICATION  
NO. AO50-6595

COUNTY: Palm Beach

PROJECT: Boiler #5

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, and 17-4, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and made a part hereof and specifically described as follows:

Replacement of existing control system on Boiler #5 with one (1) Ducon Multivane Scrubber Model II, Size 180.

Subject to the following thirteen (13) General and ten (10) Specific Conditions

PERMIT NO.: AO50-6595  
APPLICANT: Arthur Kirstein, III

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions", and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate court action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.

3. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information: (a) a description of and cause of non-compliance; and (b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

4. As provided in subsection 403.087(6), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.111, F.S.

7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

8. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant, or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

PERMIT NO.: AO50-6595  
APPLICANT: Arthur Kirstein, III

**SPECIFIC CONDITIONS:**

1. Construction of this installation shall be completed by October 31, 1980. Application for Permit to Operate to be submitted by December 1, 1980.
2. This construction permit expires on December 31, 1980 following an initial period of operation for appropriate testing to determine compliance with the Rules of the Florida Environmental Regulation Board.
3. All applicable rules of the Department including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction.
4. The applicant shall continue the retention of the engineer of record for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. A report of such inspection shall be submitted by the engineer to the Dept. of Environmental Regulation for consideration toward the issuance of an operation permit.
5. This boiler shall be tested for particulate matter within 30 days after it is placed in operation. These test results are required prior to our issuance of an operation permit and shall be submitted in duplicate to the DER SOUTH FLORIDA DISTRICT OFFICE, 2180 West First Street, Suite 401, Fort Myers, Florida 33901.
6. Satisfactory ladders, platforms and other safety devices shall be provided/available as well as necessary ports to facilitate the carrying of an adequate sampling program - see attached guidelines.
7. All fugitive dust generated at this site shall be adequately controlled.
8. The control system shall be equipped with instrumentation to monitor total pressure drop and inlet water pressure.
9. Drawings, plans, documents or specifications submitted by the permittee, not attached hereto, but retained on file at the South Florida District Office, are made a part hereof.
10. Emissions from this facility shall not exceed the following limitations:
  - (a) Particulate Matter - 0.30 pounds per million BTU's of carbonaceous fuel heat input plus 0.10 pounds per million BTU's of fossil fuel heat input.
  - (b) Opacity - 30 percent except that up to 40 percent is permissible for not more than two minutes in any one hour.

Expiration Date: December 31, 1980

Issued this 12th day of May, 19 80

                     Pages Attached.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



Signature

PHILIP R. EDWARDS  
District Manager

PAGE 4 OF 4





STATE OF FLORIDA  
DEPARTMENT OF  
ENVIRONMENTAL REGULATION

CONSTRUCTION  
PERMIT

NO. AO50-6595

GULF & WESTERN FOOD PRODUCTS CO.  
Boiler #5

DATE OF ISSUANCE

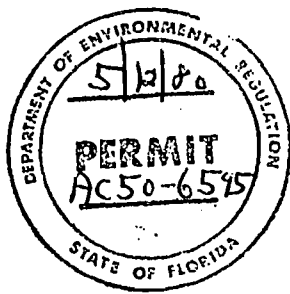
May 12, 1980

DATE OF EXPIRATION

December 31, 1980

PHILIP R. EDWARDS  
District Manager

(16)



BOILER NO. 5

RECEIVED

MAR 12 1980

DER SO. FLA. DISTRICT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

PAID JAN 18 1980

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

6595

SOURCE TYPE: \_\_\_\_\_ ( ) New<sup>1</sup> (X) Existing<sup>1</sup>

APPLICATION TYPE: ( ) Construction ( ) Operation (X) Modification  
Gulf + Western Food Products Co.

COMPANY NAME: Okeelanta Sugar Division COUNTY: Palm Beach

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired)

SOURCE LOCATION: 4 miles West of U.S. 27  
Street 8 miles S. of South Bay City South Bay, Florida

UTM: East 17-524-9 Km. E North 2939.5 Km N

Latitude 26° 35' 00" N Longitude 80° 45' 00" W

APPLICANT NAME AND TITLE Arthur Kirstein, III Executive Vice President

APPLICANT ADDRESS P.O. Box 86, South Bay, Florida 33493

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Gulf + Western Food Products Co.

I certify that the statements made in this application for a Modification permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

Signed: X Arthur Kirstein, III  
Arthur Kirstein, III Executive Vice-President  
 Name and Title (Please Type)

\*Attach letter of authorization Date: 3-7-80 Telephone No. (305)996-9072

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed: Angel Stellochea  
Angel Stellochea  
 Name (Please Type)

Gulf + Western Technology Corporation  
 Company Name (Please Type)

(Affix Seal)

P.O. Box 86, South Bay, Florida 33493  
 Mailing Address (Please Type)

Florida Registration No. 12343 Date: 3-7-80 Telephone No. (305)996-9072  
<sup>1</sup> See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

(2)

SECTION II: GENERAL PROJECT INFORMATION

- A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

The proposed project consists of replacing two existing Joy Impinger Scrubbers Model 56-D by one Ducon Multivane Model II, Size 180 made out of 7 gauge 316 L.SS  
The project will result in full compliance. This is going to be the same modification we made in Boiler #6 and that has improved the performance of such source.

- B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction May 1980 Completion of Construction October 1980

- C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Structural Steel duct work and concrete foundation	\$ 40,000.00
Ducon Multivane Scrubber including chimney, test, platforms, piping and installation	210,000.00

- D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Boiler #	Permit #	Insurance Date	Expiration Date
5	A050-5886	9-11-79	9-11-84

- E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? Yes X No

- F. Normal equipment operating time: hrs/day 24; days/wk 7; wks/yr -; if power plant, hrs/yr 3,600; if seasonal, describe:

- G. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? \_\_\_\_\_

- a. If yes, has "offset" been applied? \_\_\_\_\_  
 b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_  
 c. If yes, list non-attainment pollutants. \_\_\_\_\_

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. \_\_\_\_\_

3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI & VII. \_\_\_\_\_

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? \_\_\_\_\_

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? \_\_\_\_\_

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES  
(Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
N/A	N/A	N/A	N/A	N/A

B. Process Rate, if applicable: (See Section V, Item 1)

- Total Process Input Rate (lbs/hr): Bagasse 59.281
- Product Weight (lbs/hr): 122,000 of steam @ 250 psig @ 550° FTT

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	67	112	0.3 #MBTU/Hr	67.19	566	1019	
Sulfur Dioxide	39.25	70.65			39.25	70.65	
Sulfur Trioxide	0.5	0.9			0.5	0.9	
Carbon Monoxide	59.91	107.83			59.91	107.83	
Hydrocarbons CH <sub>4</sub>	59.41	106.93			59.41	106.93	
Nitrogen Oxides NO <sub>2</sub>	50.82	91.48			50.82	91.48	

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec.V, It
Ducon Multivane				
Scrubber Model II				
Size 180	Particulate	88.16%	0.3-10.0 & Greater	See Derivation

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. -- 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

\*\* Contaminants emitted based on burning 2.976 barrel of oil and 29.64 tons of bagasse per hour.

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Moisture Bagasse	47,358	59.281	
2% Bunker C #6	1.5	2.97	

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis: Fuel Oil Bagasse: See Test Report attached.

Percent Sulfur: 2% Percent Ash:

Density: 8.1 lbs/gal Typical Percent Nitrogen:

Heat Capacity: 18,500 BTU/lb 149,850 BTU/gal

Other Fuel Contaminants (which may cause air pollution): None

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average N/A Maximum N/A

G. Indicate liquid or solid wastes generated and method of disposal.

All liquid or solid wastes generated are contained in controlled ponds.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 62.5 ft. Stack Diameter: 71.6" ft.

Gas Flow Rate: 109,100 ACFM Gas Exit Temperature: 152°F.

Water Vapor Content: 23% Velocity: 36.67 FPS

Blow down water from the boiler will be discharge containing:

P. Alkalinity	PPM as C	CO <sub>3</sub>	= 200-600
Hydrate Alkalinity	PPM as C <sub>a</sub>	CO <sub>3</sub>	= 20-600
Chloride	PPM as Cl		= 0-150
Phosphate	PPM as PO <sub>4</sub>		= 30-150
Sulphate	PPM as SO <sub>3</sub>		= 30-50
Total dissolved solids	PPM		= 1850-2500

The blow down water from the boiler will be discharged into the main mill waste ditch. This water is used to flood the cane fields and it is impounded and controlled within the farms private land.

Approximately 400 GPM of Slurry from the Scrubber will be discharged into the main mill waste ditch and used to flood the cane fields, and it will be impounded and controlled within the farms private land.

**SECTION IV: INCINERATOR INFORMATION**

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: ( ) Cyclone ( ) Wet Scrubber  
( ) Afterburner ( ) Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



(5)

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight - show derivation.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, etc.).
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3, and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

( ) Yes ( ) No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

B. Has EPA declared the best available control technology for this class of sources? (If yes, attach copy)

( ) Yes ( ) No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

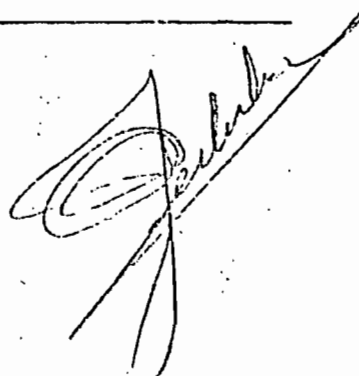
D. Describe the existing control and treatment technology (if any).

- 1. Control Device/System:
- 2. Operating Principles:
- 3. Efficiency:\*
- 5. Useful Life:
- 7. Energy:
- 9. Emissions:

- 4. Capital Costs:
- 6. Operating Costs:
- 8. Maintenance Cost:

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

\*Explain method of determining D 3 above.





10. Stack Parameters

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: °F
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- i. Availability of construction materials and process chemicals.
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power - KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space and operate within proposed levels:

4.

- a. Control Device
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

a.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:
- (5) Environmental Manager:
- (6) Telephone No.

\*Explain method of determining efficiency above.

(7) Emissions:\*  
CONTAMINANT

RATE OR CONCENTRATION


(8) Process Rate:\*

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No:

(7) Emissions:\*

CONTAMINANT

RATE OR CONCENTRATION


(8) Process Rate:\*

10. Reason for selection and description of systems:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.



G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.



March 7, 1980

Addendum to Permit Application to modify  
 Air Pollution Source Boiler #5 G+W Food  
 Products Company, Okeelanta Sugar Division.

AIR POLLUTION SOURCES AND CONTROL DEVICES

Show the Derivation of Process Weight

122,000 lbs/hr steam @ 250 psig and 550 FT

Total heat in steam  $122,000 \times 1290.5 = 157.44 \times 10^6$  BTU/hr

Total heat in feed water =  $122,000 \times 224.6$  BTU/lb =  $27.4 \times 10^6$

$157.44 \times 10^6 - 27.4 \times 10^6 = 130.04 \times 10^6$

Losses due to chimney dry gasses	_____
Losses due to moisture form to burn hydrogen	_____
Losses due to moisture in air	_____
Losses due to associated water	_____
Losses due to incomplete carbon combustion	_____
Losses due to carbon in ashes	_____
Losses due to radiation	_____
	0.45

Heat value in one pound of  
 No. 6 Fuel Oil 18,500 BTU's

Heat value in one pound of average  
 Okeelanta bagasse 54.9% moisture 3,673 BTU's

Efficiency for boiler = 0.55

Total heat fuel input =  $\frac{130.04 \times 10^6}{0.55} = 236.44 \times 10^6$

Total heat input less fuel oil heat input

$236.44 \times 10^6 - 18.7 \times 10^6 = 217.74 \times 10^6$

$217.74 \times .3 = 65.32$

$18.7 \times .1 = \frac{1.87}{67.19}$

$\frac{18.7 \times 10^6}{149.850 \times 42} = 2.97$  Barrels/hour - 125 gals.

CONTINUED.....

$$\frac{217.74 \times 10^6}{3673} = 59.281 = 29.64 \text{ Tons/hr.}$$

Estimated discharge of each contaminants in lbs/hr and tons/yr based on fuel burned/hr 125 lgs. per hour and 29.64 tons of bagasse/hour.

Particulate	563.2	1013.8	2.88	5.18	566.08	1019.0
Sulfur Dioxide	-	-	39.25	70.65	39.25	70.65
Sulfur Trioxide	-	-	0.5	0.9	0.5	0.9
Carbon Monoxide	59.28	106.7	0.625	1.13	59.91	107.83
Hydrocarbons as CH <sub>4</sub>	59.28	106.7	0.13	0.23	59.41	106.93
Nitrogen Oxides as NO <sub>2</sub>	35.57	64.03	15.25	27.45	50.82	91.48

BASIS FOR EFFICIENCY ON THE PROCESS

Estimated particulate emissions 566 lbs/hr coming out of Boiler #5

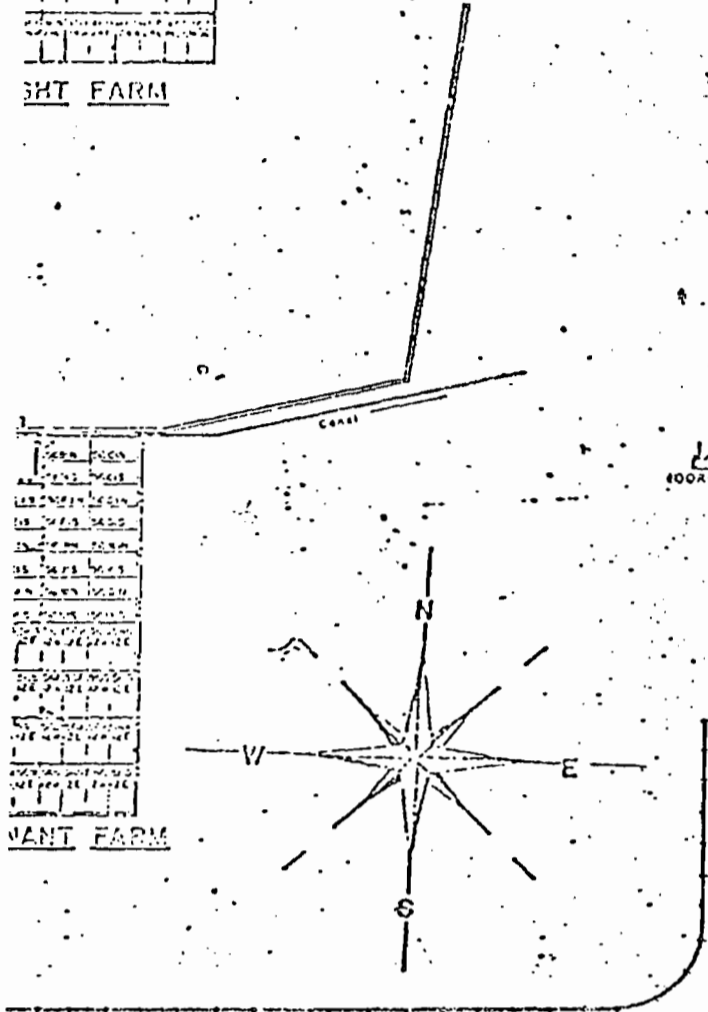
Ducon Scrubber Efficiency 88.16

$$566 - \frac{(88.16 \times 566)}{100} = 566 - 499 = 67$$

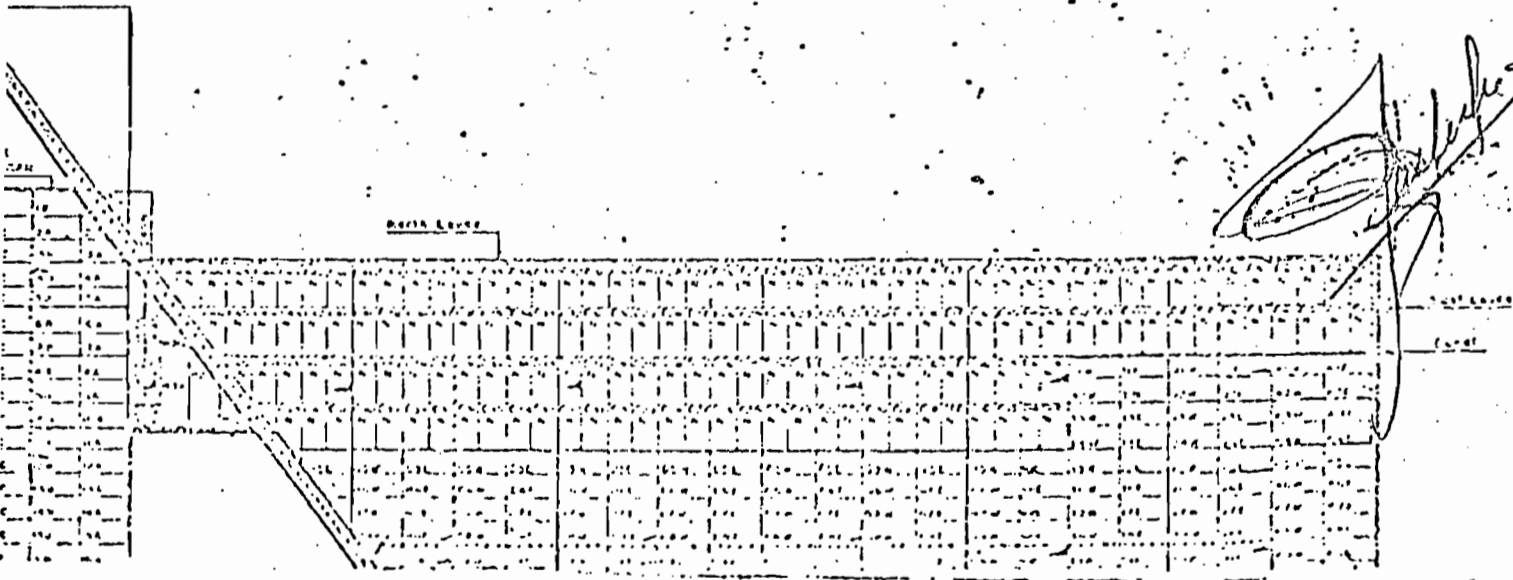
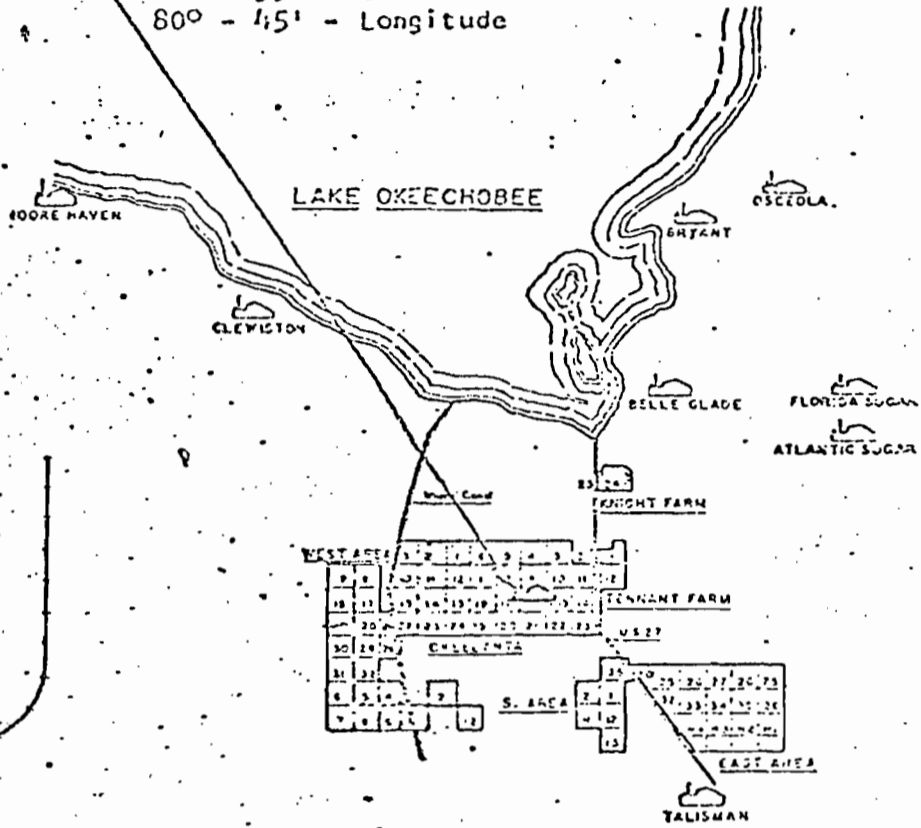
67 lbs./hr particulate going out to the atmosphere

499 lbs/hr particulate going to slurry pond.

# GULF + WESTERN FOOD PRODUCTS COMPANY OKEELANTA DIVISION SOUTH BAY, FLORIDA PLOT PLAN



Pollution Control Plant located at  
Okeelanta Mill Site  
26° - 35' - Latitude  
80° - 45' - Longitude

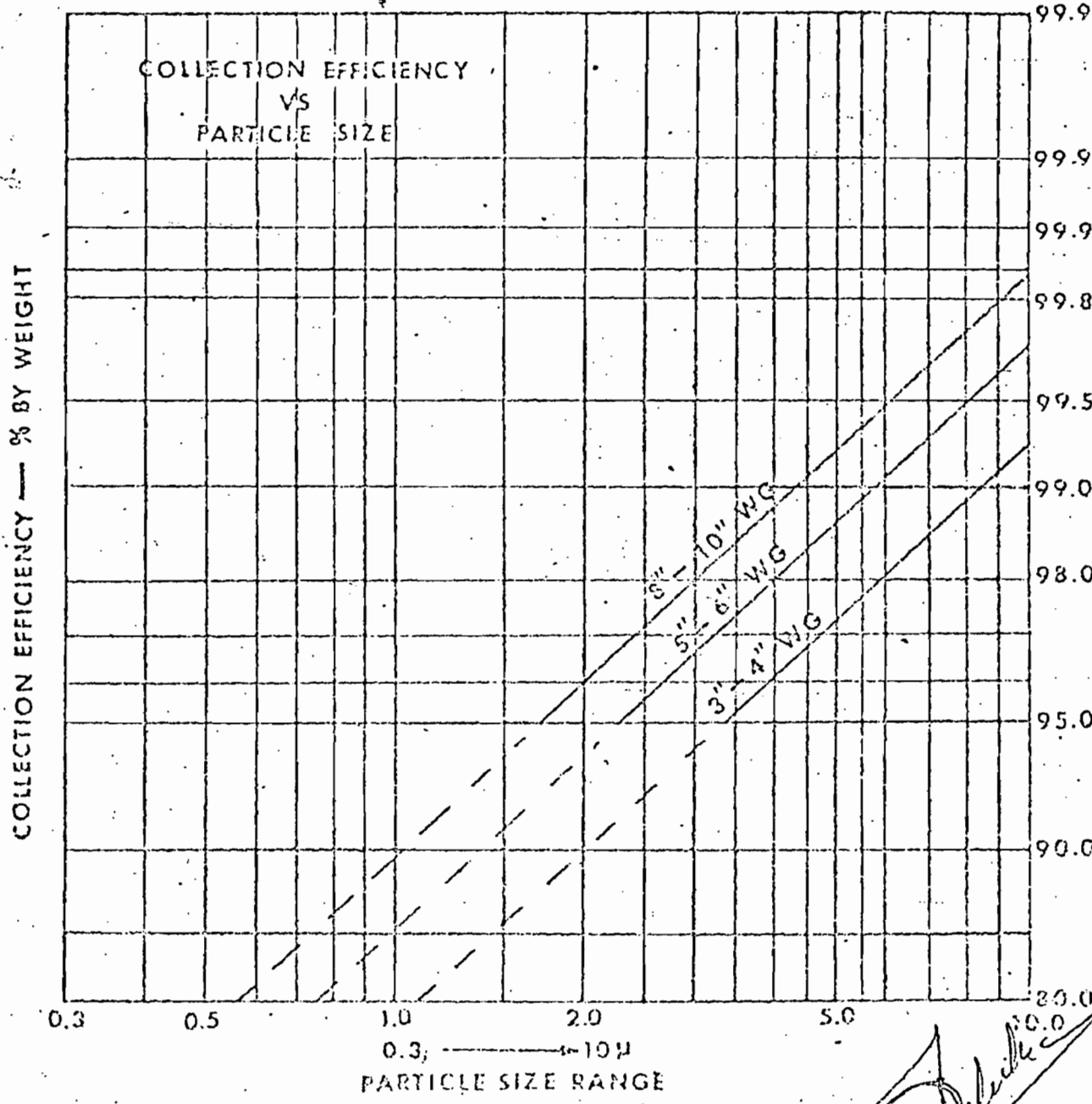




Case #

RECEIVED  
JAN 18 1950  
NEW YORK DISTRICT

# ESTIMATED COMPARATIVE SCRUBBER PERFORMANCE CURVES MULTIVANE, TYPE-'L'



NOTE: CURVES ARE FOR COMPARISON PURPOSES ONLY  
NOT TO BE USED FOR OVERALL EFFICIENCY CALCULATIONS

## DUCON

THE DUCON CO. INC. - 147 EAST SECOND ST., MINFOLA, LI, N.Y.

DUCON

THE DUCON COMPANY, INC.

SUBSIDIARY OF UNITED STATES FILTER CORPORATION

147 EAST SECOND STREET • MINEOLA, NEW YORK 11501

TEL: 516 741-6100 • CABLE: DUCON MINEOLANY • TWX 510 222-9861

January 7, 1980

Gulf & Western Industries, Inc.  
Okeelanta Sugar Division  
P.O. Box 86  
South Bay, Florida 33493

Attention: Mr. A. Tellechea

Subject: Ducon Multivane Scrubber  
Performance Guarantee  
Boilers No. 4 & 5

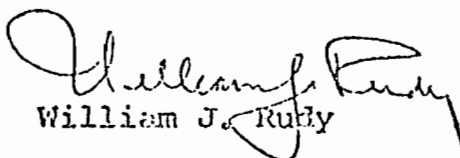
Gentlemen:

We make the following statement of performance in regard to the Ducon Multivane Scrubber Size 180 that is to be installed on Boilers No. 4 & 5.

Gulf & Western is to install the existing Multivanes on Boilers No. 4 & 5. The Ducon Company guarantees that the relocated Multivanes on Boilers No. 4 & 5, when operating at a pressure drop of 6.0" to 7.0" w.g. at normal boiler operating conditions, will result in a particulate stack emission not to exceed 0.3 lbs./million BTU input.

This guarantee is based upon the installation of the Multivane Scrubbers in accordance with our standard installation instructions and operated according to the Ducon operating instructions.

Very truly yours,  
THE DUCON COMPANY, INC.

  
William J. Ruby

cg

cc: Technical Service File  
C79-0200

RECEIVED

JAN 13 1980

DEPT. SO. FLA. DISTRICT

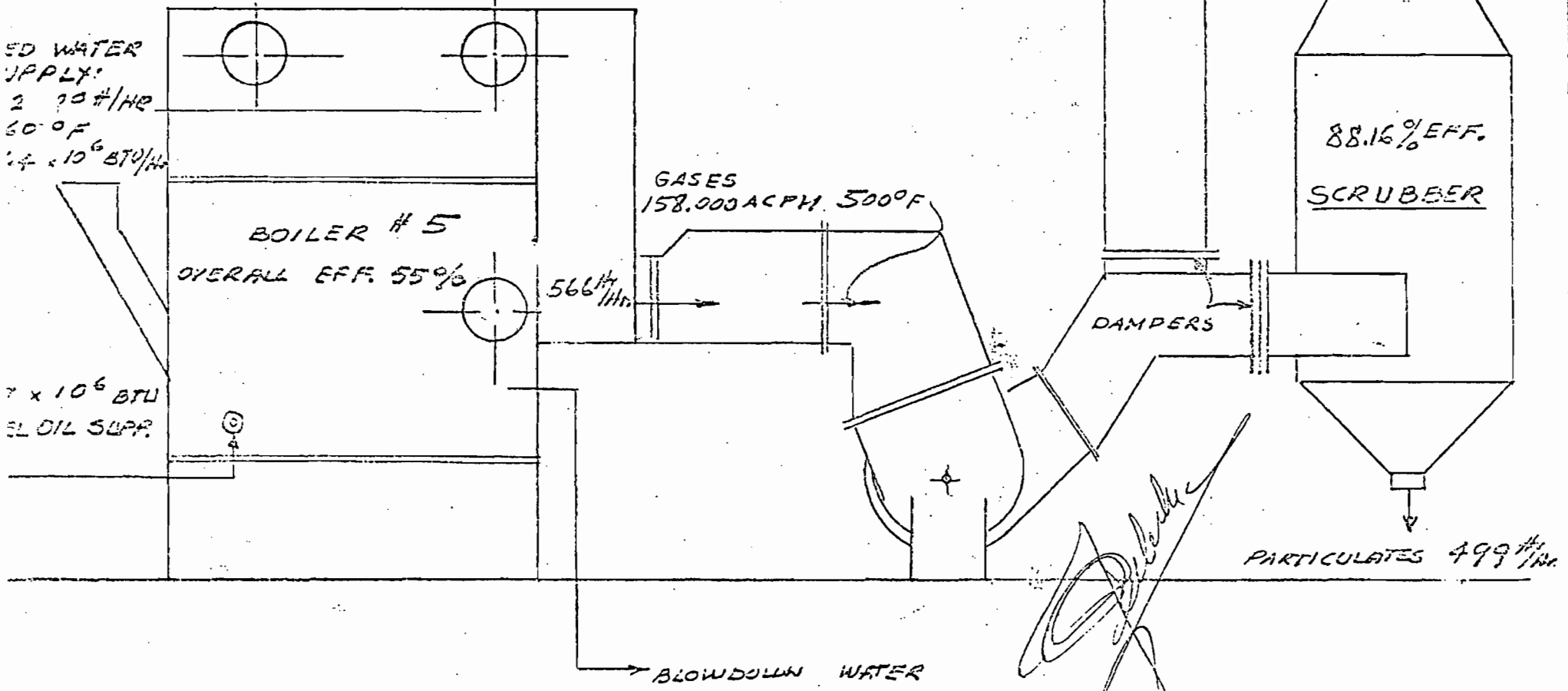
AIR POLLUTION CONTROL EQUIPMENT • PNEUMATIC CONVEYING SYSTEMS  
MEMBER OF INDUSTRIAL GAS CLEANING INSTITUTE, INC

SCFM 1520F  
PARTICULATES 67 #/HR

STEAM FOR PROCESS  
50 PSIG 550°F  
22,000 #/HR  
17.4 x 10<sup>6</sup> BTU'S

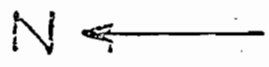
CONDENSATE WATER  
SUPPLY:  
270 #/HR  
60°F  
1.4 x 10<sup>6</sup> BTU/HR

7 x 10<sup>6</sup> BTU  
HEAVY OIL SUPP.

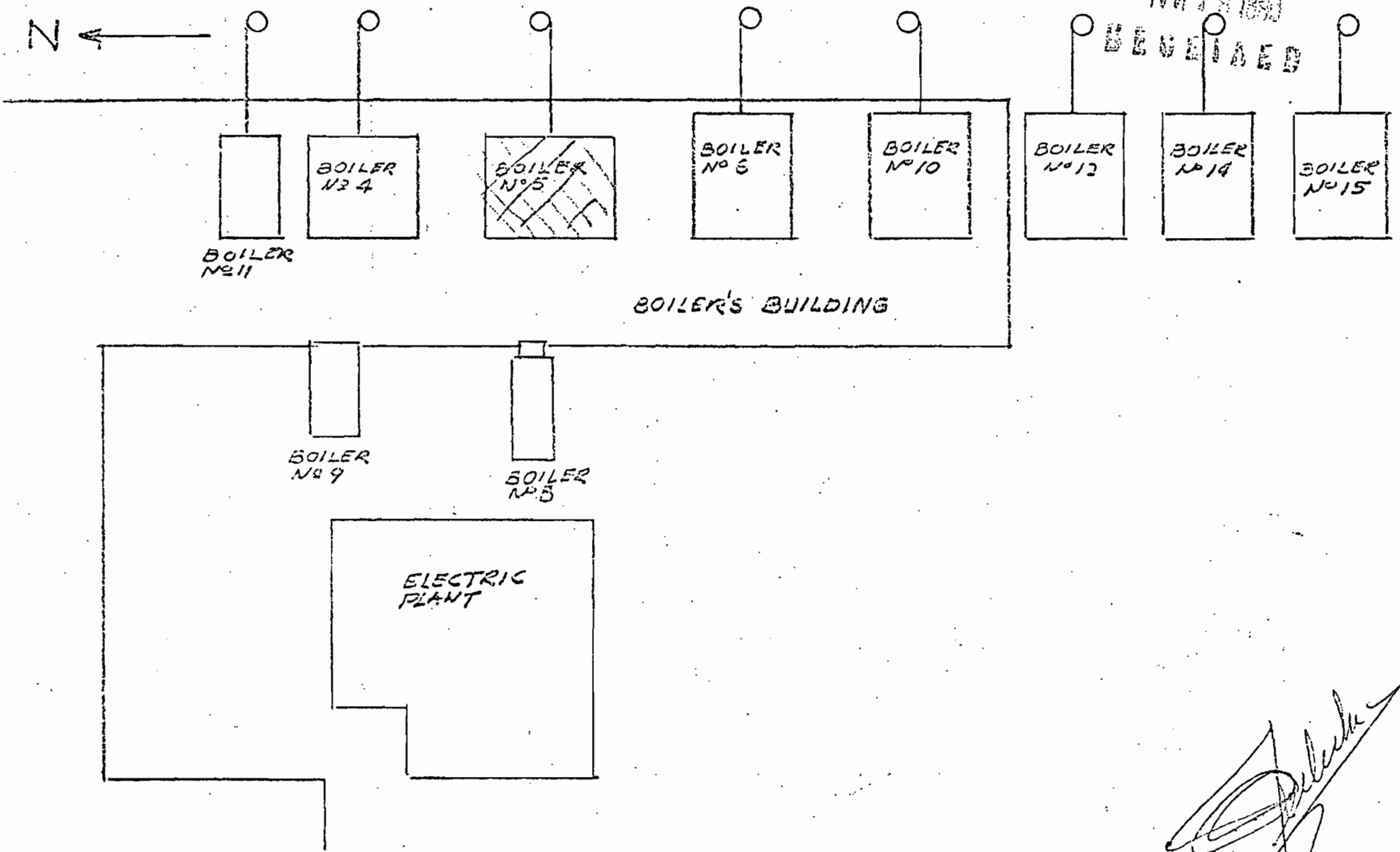


*[Handwritten signature]*

<p>FLOW DIAGRAM BOILER NO 5</p>	<p>GULF+WESTERN FOOD PRODUCTS Co OKEELANTA DIVISION</p>	
	<p>DATE:</p>	
	<p>DWG NO</p>	
	<p>5-1</p>	



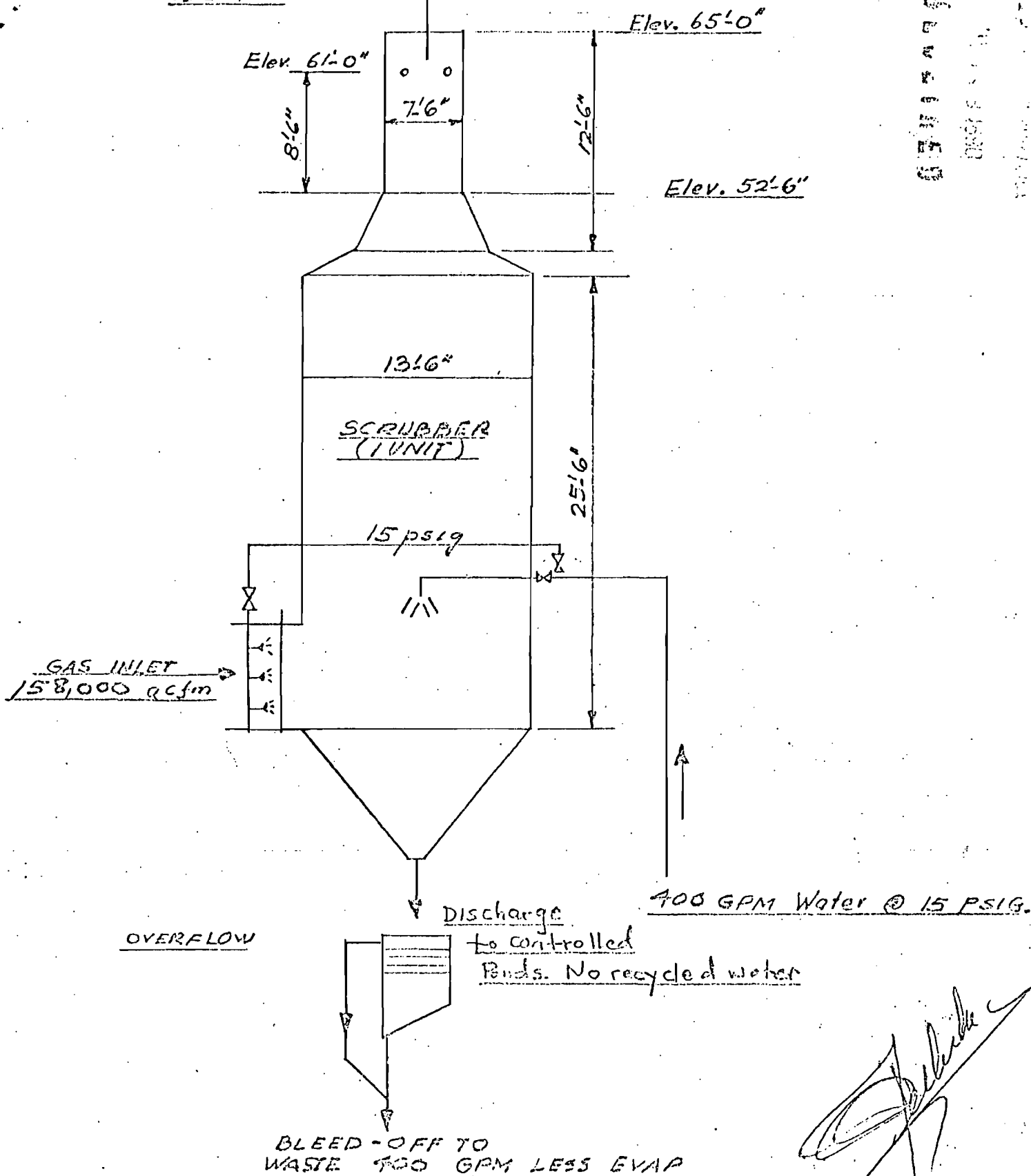
ALL BY DESIGN  
7/11/53  
REVISED



<u>SCRUBBER AND</u> <u>BOILER #5 - SITE LOCATION</u>	GULF + WESTERN FOOD PRODUCTS CO.	
	OKEELANTA DIVISION	
	DATE:	
	DWG NO 5-3	

GAS OUTLET  
709,100 cfm  
152 °F

PARTICULATES 17 1/2%



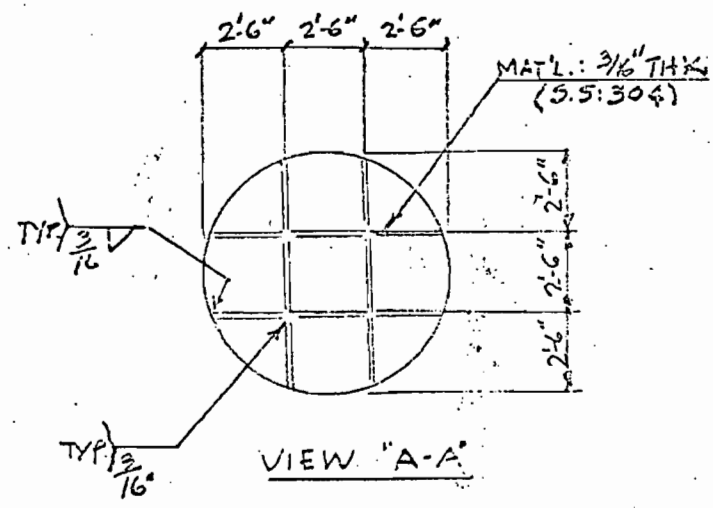
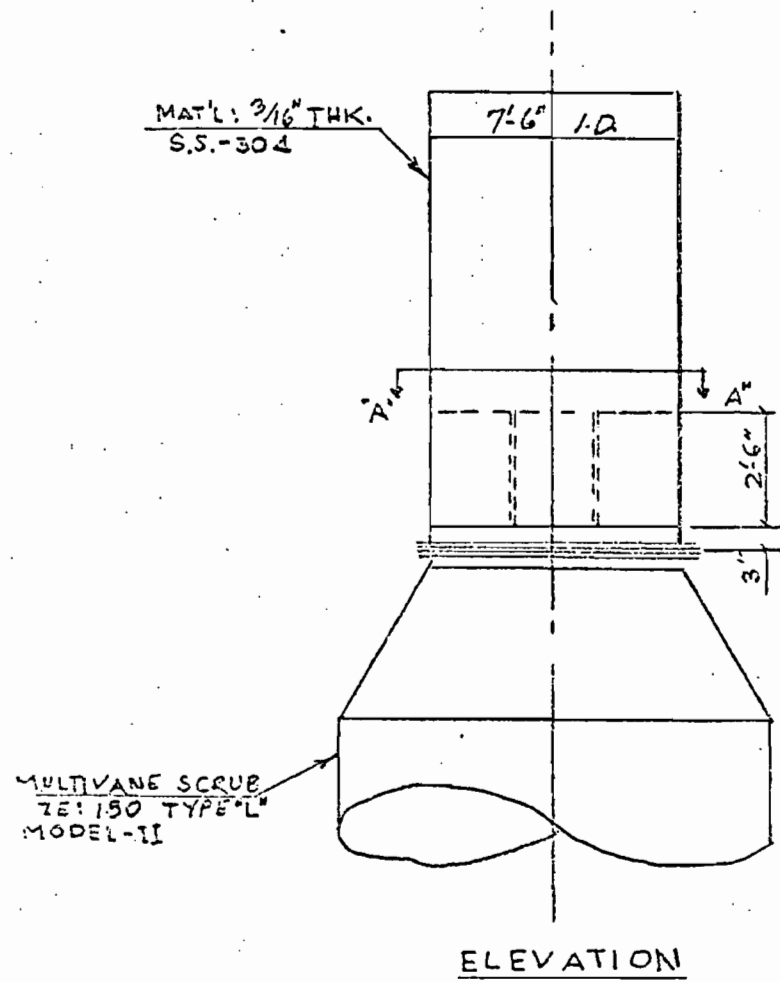
REVISED  
08/15/80

SCRUBBER WATER BALANCE  
FOR BOILER # 5  
DUCONWET SCRUBBER

GULF + WESTERN FOOD PRODUCTS CO.  
OKEELANTA DIVISION

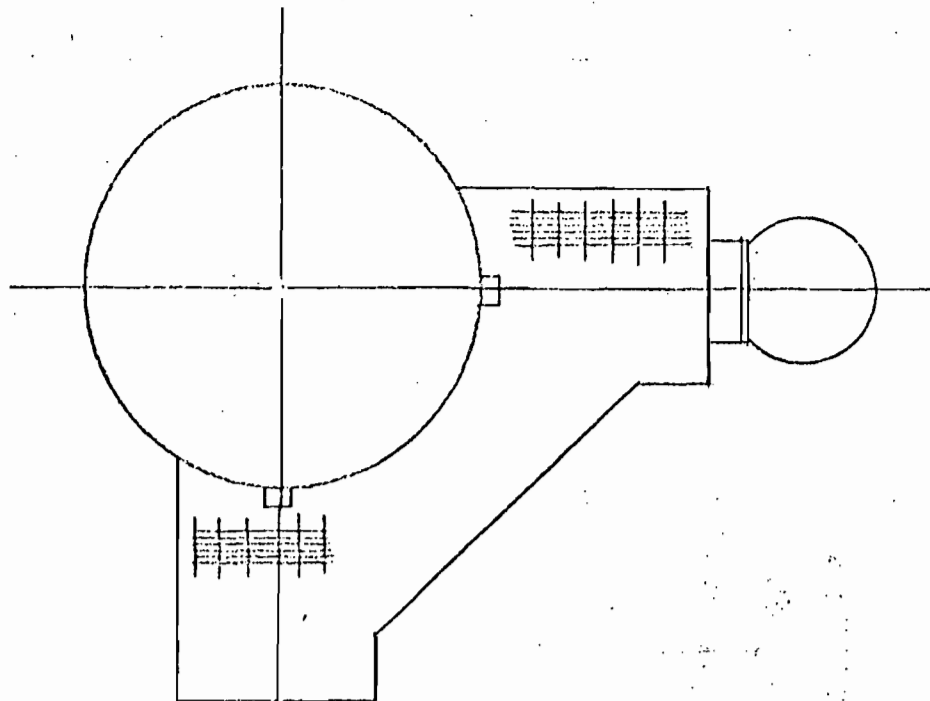
Date:  
Drawg No. 5-2

THIS IS  
BEHOLD

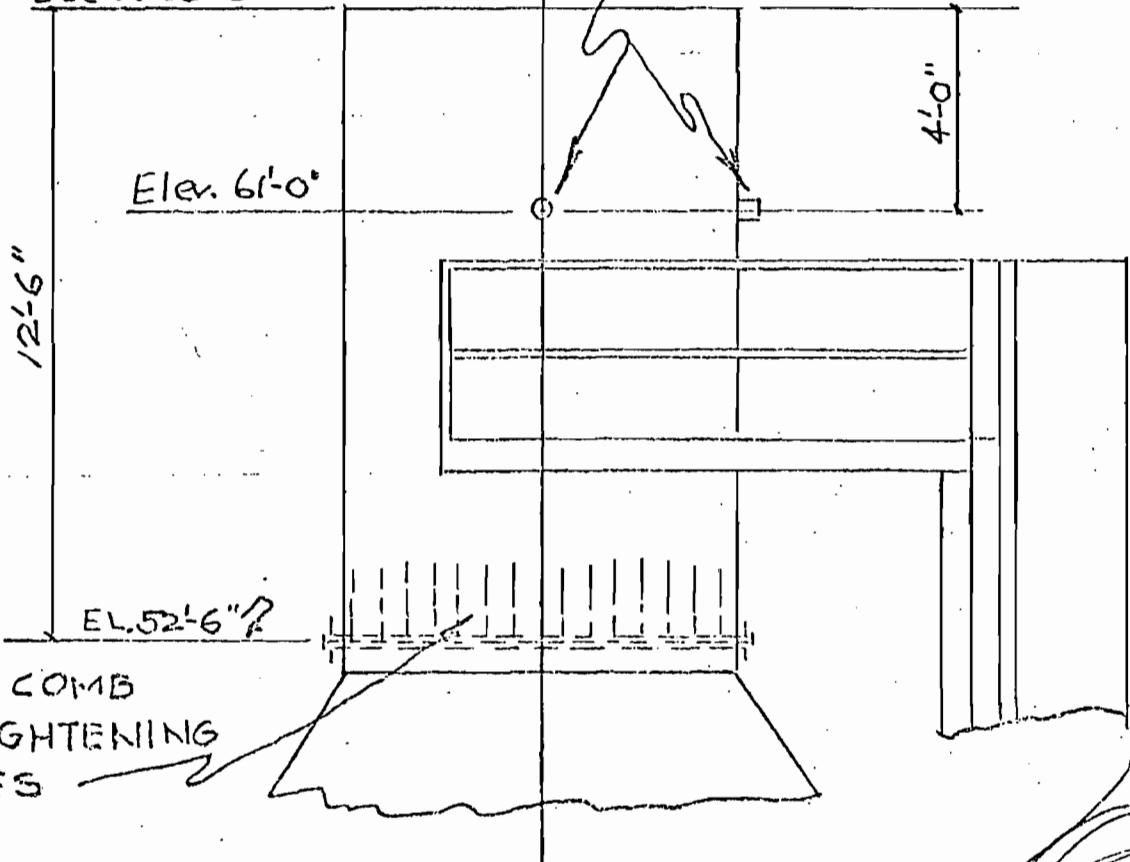


*[Handwritten signature]*

Arrangement of Diverging Vane	Gulf + Western Food Products Co.
for size 180 Multivane, Type II	Okechanta Sugar Division
Scrubber. Boiler # 5	Date:
	Drawg. No. 5-4



ELEV. 65'-0" 4" COUPLING  
TEST SAMPLING PORTS



HONEY COMB  
 STRAIGHTENING  
 VANES

*[Handwritten signature]*

Sampling Ports And Test Platform  
 Boiler # 5

Gulf + Western Food Products Co.  
 Oklaclanta Sugar Division

Date:

Dwg. No. 5-5

STATE OF FLORIDA  
DEPARTMENT OF AIR AND WATER  
POLLUTION CONTROL

CONSTRUCTION PERMIT

FOR GULF & WESTERN FOOD PRODUCTS CO.  
OKEELANTA SUGAR DIVISION  
POST OFFICE BOX 86  
SOUTH BAY, FLORIDA 33493

PERMIT NO. AC50-2054A

DATE 12-20-74

PURSUANT TO THE PROVISION OF SECTION 403.061 (16) OF CHAPTER 403, FLORIDA STATUTES AND CHAPTER 17-4, FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO:  
MR. ARTHUR KIRSTEIN III, VICE PRESIDENT & GENERAL MANAGER

FOR THE CONSTRUCTION OF THE FOLLOWING:  
SCRUBBER SYSTEM FOR BOILER #4, CONSISTING OF TWO JOY MODEL  
56-D-SS IMPINGEMENT SCRUBBERS

LOCATED AT: 4 MILES WEST OF U.S. HWY. 27, 8 MILES SOUTH OF  
SOUTH BAY - LAT. 26° 35'00" LONG. 80° 45'00"

IN ACCORDANCE WITH THE APPLICATION DATED 11-20-74  
AND IN CONFORMITY WITH THE STATEMENTS AND SUPPORTING DATA ENTERED THEREIN,  
ALL OF WHICH ARE FILED WITH THE DEPARTMENT AND ARE CONSIDERED A PART OF THIS  
PERMIT.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ITS ISSUANCE UNTIL 11-30-75  
AND SHALL BE SUBJECT TO ALL APPLICABLE LAWS OF THE STATE AND THE RULES AND REG-  
ULATIONS OF THE DEPARTMENT.

Philip R. Edwards  
PHILIP R. EDWARDS,  
REGIONAL ADMINISTRATOR

PETER P. BALJET,

EXECUTIVE DIRECTOR



**BEST AVAILABLE COPY**

STATE OF FLORIDA

DEPARTMENT OF POLLUTION CONTROL

CONSTRUCTION PERMIT PROVISOS

AIR POLLUTION SOURCES

Permit No. AC50-2054A

Date: 12-20-74

- (X) 1. Construction of this installation shall be completed by 8-15-75. Application for Permit to Operate to be submitted by 11-30-75.
- (X) 2. This construction permit expires on 11-30-75 following an initial period of operation for appropriate testing to determine compliance with the Rules of the Florida Pollution Control Board.
- (X) 3. All applicable rules of the Department including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction.
- (X) 4. The applicant shall continue the retention of the engineer of record for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. A report of such inspection shall be submitted by the engineer to the Department of Pollution Control for consideration toward the issuance of an operation permit.
- (x) 5. This boiler shall be tested\* for particulates within 30 days after it is placed in operation. These test results are required prior to our issuance of an operation permit and shall be submitted in duplicate to the DPC Southwest Florida Regional Office 2180 W. First St., Suite 401, Ft. Myers, Florida 33901.
- \*FUEL ANALYSIS MAY BE SUBMITTED FOR REQUIRED SULFUR DIOXIDE EMISSION TEST.
- ( ) 6. The operation of this installation shall be observed for visible emissions in accordance with Method 9 - Visible Determination of the Opacity of Emissions from Stationary Sources (36FR24895; Federal Register, December 23, 1971). The observation results are required prior to our issuance of an operation permit, and shall be submitted in duplicate to the DPC Florida Regional Office,
- (X) 7. Satisfactory ladders, platforms, and other safety devices shall be provided/available as well as necessary ports to facilitate the carrying out of an adequate sampling program.
- (X) 8. There shall be no discharges of liquid effluents or contaminated runoff from the plant site.
- (X) 9. All fugitive dust generated at this site shall be adequately controlled.

- (10) Submit, within sixty (60) days upon receipt of this permit, the scrubbers design operating data as specified by the manufacturer, including pressure drop, water flow rates, etc.
- (11) This boiler shall not be operated after July 1, 1975 without the control system indicated on this permit being installed and operational.

PERMITTED BY  
 SOUTHWEST REGION  
 DEPT. OF POLLUTION CONTROL  
 PERMIT NO. AC 50-2054A  
 D: TE 12/20/74



60th Day  
 FEB 17 1975  
 Boiler #4

STATE OF FLORIDA  
 DEPARTMENT OF POLLUTION CONTROL

RECEIVED  
 DEC 6 1974  
 SW REGION DPC

APPLICATION TO ~~OPERATE~~/CONSTRUCT POLLUTION SOURCES

SECTION I - GENERAL INFORMATION FOR ALL POLLUTION SOURCES  
 I TO BE FILLED IN BY APPLICANT

Source Type: Air Pollution  
 Type application:  Operation  Temporary Operation  Construction  
 Status Source:  New  Existing  Modification  
 Source Name: Gulf + Western Food Products Co.  
Okeelanta Sugar Division County: Palm Beach  
4 Miles West of U.S. Hwy. 27  
 Source Location: Street 8 Miles Southwest of South Bay City: South Bay  
 (Water Source Only) Lat: 26 ° 35 ' 00 " Long: 45 ° 00 ' 00 "  
 (Air Source Only) UTM: East \_\_\_\_\_ North \_\_\_\_\_

PAYD DEC 6 1974

Appl. Name and Title: Arthur Kirstein III, Vice-President & General Manager  
 Appl. Address: P.O. Box 86, South Bay, Florida 33493

II TO BE FILLED IN BY REGION (\*BY BUREAU OF PERMITTING)

Control No.	Region	County	Type	*Project

Type Permit	Date Rec'd	*Permit No.	*Issue Date	*Compl. Date	*Exp. Date

Source Description: \_\_\_\_\_  
 Control Equipment: \_\_\_\_\_

Water Permits

Receiving Body Code: \_\_\_\_\_ Surface Water Code: \_\_\_\_\_  
 Station No.: Influent: \_\_\_\_\_ Effluent: \_\_\_\_\_

Effluent:	Average	Design	% Reduction
Flow rate, MGD	_____	_____	_____
BOD, lbs/day	_____	_____	_____
Susp. Sol., lbs/day	_____	_____	_____
Other: _____	_____	_____	_____

Air Permits

Operating Time:  Continuous  Intermittent  
 Fuel: Type Bagasse & #6 fuel oil M-BTU/lir. In Put 186.32 x 10<sup>6</sup>  
 Incinerator: Capacity, tons/day \_\_\_\_\_ Type Waste \_\_\_\_\_  
 Mfg. & Model \_\_\_\_\_

Pollutant Emissions, lbs/day	Actual	Design	Allowable
Particulate	_____	_____	_____
Sulfur Oxides	_____	_____	_____
Other: _____	_____	_____	_____

Implementation: Estimated Appl. Filing Date November 1974  
 Estimated Start of Const. July 1975 Estimated Compliance Date October 1975

## DESCRIPTION OF PROPOSED PROJECT

- A. Describe the nature and extent of the proposed project. Refer to existing pollution control facilities, DPC permits, conditions, orders and notices, expected improvement in performance of the facilities and state whether the proposed project will result in full compliance of the source. Attach additional sheet if necessary.

The proposed project consists in the installation of two (2) Joy Impinger Scrubbers, model 56-D-SS to receive the flue gases from the existing #4 boiler and reduce the particulate emissions to meet the existing Florida Standards of 0.3# per million BTU Heat Input. This installation will be provided with the necessary dampers to by-pass the scrubbers in order to make emergency repairs or cleanings.

- B. Schedule of Project Covered in this Application (Construction Permit Application Only).

Federally or State Financed Projects only:

Planning Complete N/A

Financing Program Complete \_\_\_\_\_

Indicate other local, state and/or federal agency approvals and dates \_\_\_\_\_

All projects:

Start of Construction July 1975

Completion of Construction October 1975

- C. Costs of Construction (Show a breakdown of costs for individual components/units of the proposed project serving pollution control purpose only). Information on actual costs shall be furnished with the application for operation permit.

Two (2) Joy Turbulaire Scrubbers model 56-D-SS	35,000
Two (2) 20'-0" S.S. Stacks with honey comb straighteners & parts	24,000
New turbine & gear drive to increase capacity I.D. Fan	15,000
Pumps, piping, instruments & installation	15,000
Duct work from I.D. to scrubbers, foundations & installations	20,000

NOTE: The Okeelanta Sugar Mill will resume operations for the 1975-76 Crop during the month of October.

- D. Indicate any previous DPC permits, issuance dates, and expiration dates.

Boilers Nos. 2 & 3 - Permit No. A0-50-2054	Date 5-23-73	expires 7-1-75
" No. 4 " No. A0-50-2053	" "	" "
" No. 5 " No. A0-50-2055	" "	" "
" No. 6 " No. A0-50-2056	" "	" "
" No. 7 " No. A0-50-2218	" 12-11-73	" 2-8-75
" No. 8 " No. A0-50-2219	" "	" "
" No. 9 " No. A0-50-2220	" "	" "

### AIR POLLUTION SOURCES & CONTROL DEVICES

**A. Identification of Air Contaminants**

- 1)  Particulates
  - a)  Dust
  - b)  Fly Ash
  - c)  Smoke
  - d)  Other (Identify)
- 2)  Sulfur Compounds
  - a)  SO<sub>x</sub> as SO<sub>2</sub>
  - b)  Reduced Sulfur as H<sub>2</sub>S
  - c)  Other (Identify)
- 3)  Nitrogen Compounds
  - a)  NO<sub>x</sub> as NO<sub>2</sub>
  - b)  NH<sub>3</sub>
  - c)  Other (Identify)
- 4)  Fluorides
- 5)  Acid Mist
- 6)  Odor
- 7)  Hydrocarbons
- 8)  Volatile Organic Compounds
- 9)  Other (Specify): \_\_\_\_\_

**B. Raw Materials and Chemicals Used (Be Specific)**

Description	Utilization Tons/day, lbs./day, etc.	Approximate Contaminant Content		Relate to Flow Diagram
		Type	% Wt.	
N/A	N/A	N/A	N/A	N/A

**C. Process Weight:**

- 1) Total Process Weight Rate 43,416 lbs./hr. [See Sec. 17-2.04(2)]
- 2) Product Weight 92,000 lb./hr. expressed as Steam @ 250 psig @ 550° FTT.
- 3) Normal Operating Time 24 hrs/day, 7 days/week if seasonal describe: 100% by month and 18-20 weeks per year

**D. Airborne Contaminants Discharged:**

Name of Contaminant	Actual Discharge	Discharge Criteria*	Allowable Discharge*	Relate Location to Flow Diagram
Particulate	52 lbs/hr	0.3 #/MBTU/hr	55.90	See Sketch
Sulfur Compounds	2656 "			"
Carbon Monoxides	.0033 "			"
Nitrogen Oxides	8.66 "			"
Hydrocarbons	0.266 "			"

\* Refer to Chapter 17-2 Florida Administrative Code  
(Discharge Criteria: Process Weight Rate, #/tonP<sub>2</sub>O<sub>5</sub>, #/M BTU/hr etc.)

E. Control Devices:

Name	Eff.	Conditions of Operation, Particle Size Range, etc.	Relate to Flow Diagram
2 Joy Impinger Scrubbers		Continuous	See Sketch
Model 56-D-SS-			
S. No. 0-74-438-04C y D			

F. Fuels:

Type (Be specific)	Daily Consumption	Heat Input BTU/hr.	Relate to Flow Diagram
56% Moisture Bagasse	1,042,000 lbs.	173.66 x 10 <sup>6</sup>	
#6 Fuel Oil w/2% Sulfur	16,200 "	12.66 x 10 <sup>6</sup>	

G. Describe briefly, without revealing trade secrets, the unit processes/operations generating the airborne emissions identified in this application:  
The existing boiler #4 is supplied with hot condensate at 230°F.,  
56% moisture bagasse and Bunker C #6 with 2% sulfur are fired at the  
same time in the fuel cells and 92,000 lbs/hr of 250 psig. @ 550°F.  
are generated.

H. Indicate liquid or solid wastes generated and method of disposal.  
Blow down water will be discharged containing:

P. Alkalinity	PPM as Ca CO <sub>3</sub>	=	200-600
Hydrate Alkalinity	PPM as Ca CO <sub>3</sub>	=	20-600
Chloride	PPM as Cl	=	0-150
Phosphate	PPM as PO <sub>4</sub>	=	30-150
Sulphate	PPM as SO <sub>3</sub>	=	30-50
Total dissolved solids	PPM	=	1850-2500

The blow down water from the boiler will be discharged into the main mill waste ditch. This water is used to flood the cane fields and it is impounded and controlled within the farms private land.

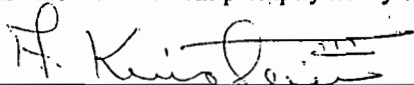
Approximately 100 GPM of Slurry from the Scrubbers will be discharged into the main mill waste ditch and used to flood the cane fields, and it will be impounded and controlled within the farms private land.

STATEMENTS BY APPLICANT AND ENGINEER

A. Applicant

Gulf + Western Food Products Co.

The undersigned owner or authorized representative of \* Okeelanta Sugar Division is fully aware that the statements made in this application for a two scrubbers installation permit are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403 Florida Statutes and all the rules and regulations of the Department or revisions thereof. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted establishment.



Signature of the Owner or Authorized Representative

Arthur Kirstein III, Vice-President & General Manager  
Name and Title (Please Type)

Date: \_\_\_\_\_ Telephone No.: 996-9072

\* Attach a letter of authorization

B. Professional Engineer Registered in Florida:

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the control and discharge of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution source(s) with appropriate control facilities, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and the rules and regulations of the Department. It is also agreed that the undersigned will furnish the applicant a set of instructions for the proper maintenance and operation of the installation covered in this application.

Signature 

Name: Angel M. Tellechea  
(please type)

Mailing Address: P.O. Box 837  
Coconut Grove Station  
Miami, Florida 33133  
Telephone No.: 444-7879

Florida Registration Number 12343  
(Please affix seal)

Date: Nov. 20, 1974



**Gulf + Western  
Food Products Company**  
A DIV. OF GULF+WESTERN INDUSTRIES, INC.

Okeelanta Sugar Division  
P. O. Box 86  
South Bay, Florida 33493  
(305) 996-9072

December 4, 1974

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

PAID DEC - 6 1974

Department of Pollution Control  
Southwest Regional Office  
3201 Golf Course Blvd.  
Punta Gorda, Florida

Gentlemen:

Please find enclosed our applications to construct pollution sources control devices for our existing Boiler #4 and Boiler #5.

Enclosed are our checks #218565 and #218564, each in the amount of \$20.00 for the application fee.

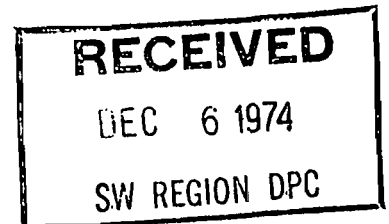
Please note that Boilers #2 and #3 will not be operating after April, 1975.

Sincerely yours,

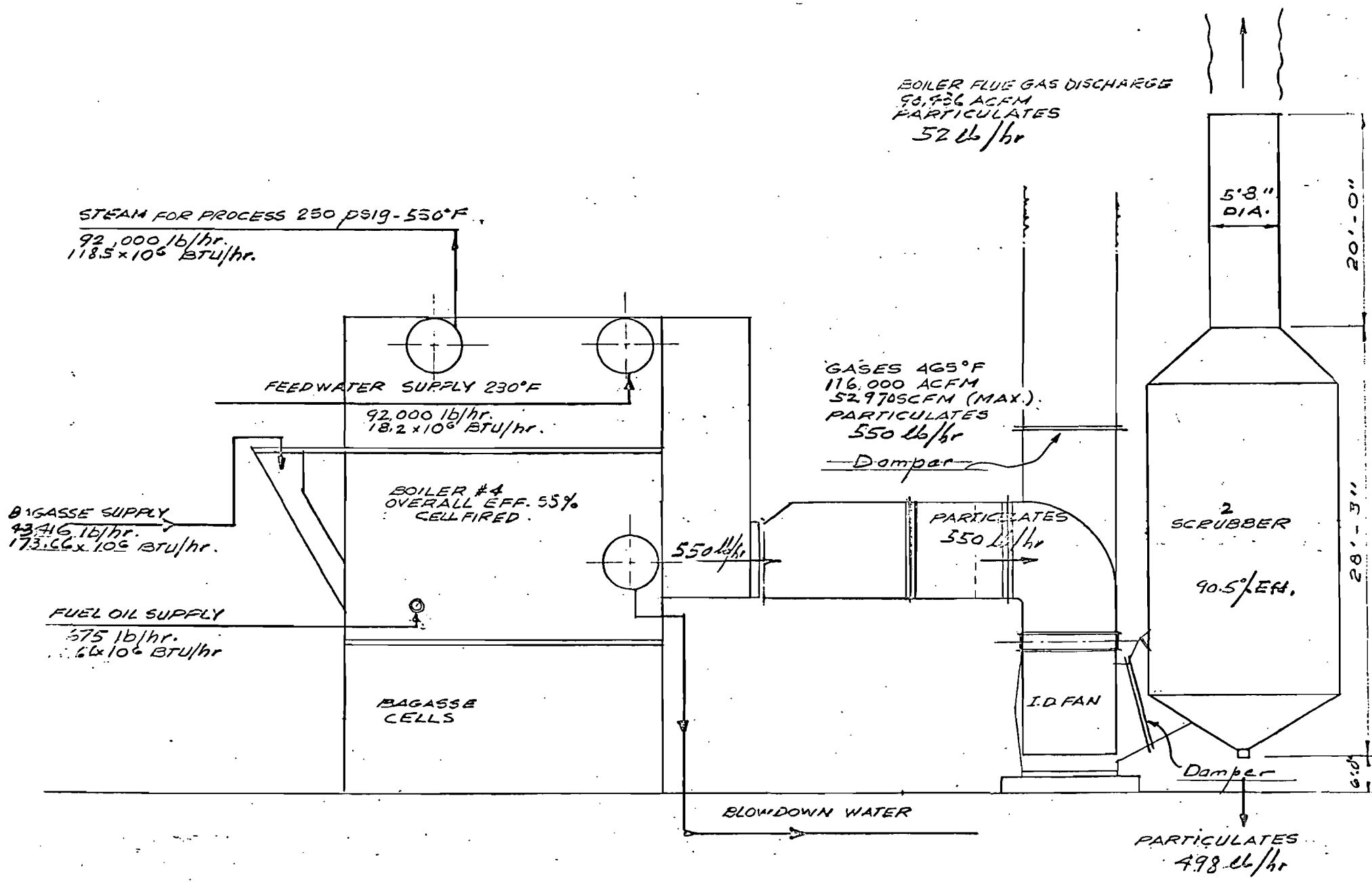
Arthur Kirstein III  
Vice President & General Manager

AK/mm

Encl.



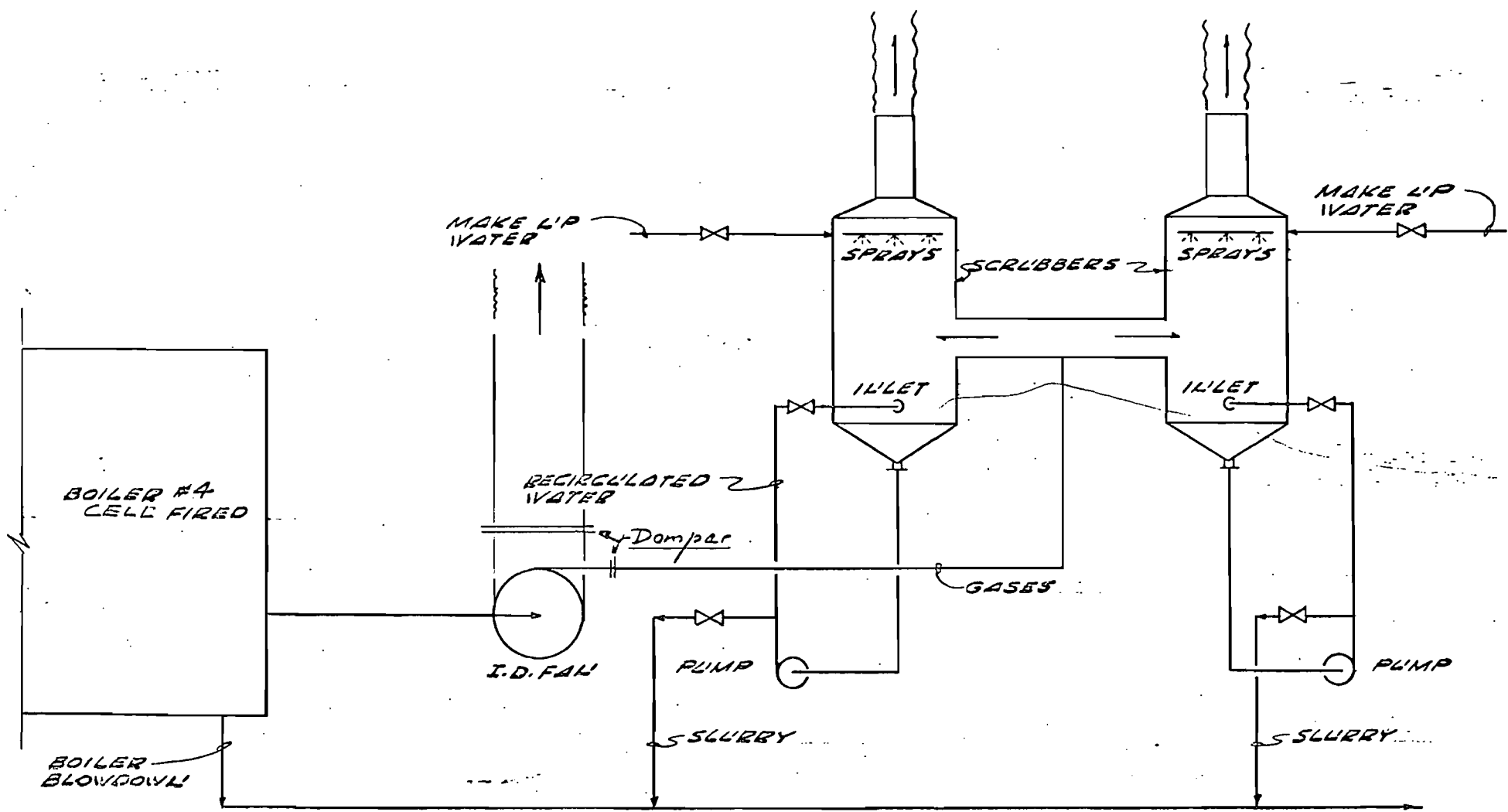




*Edwards*

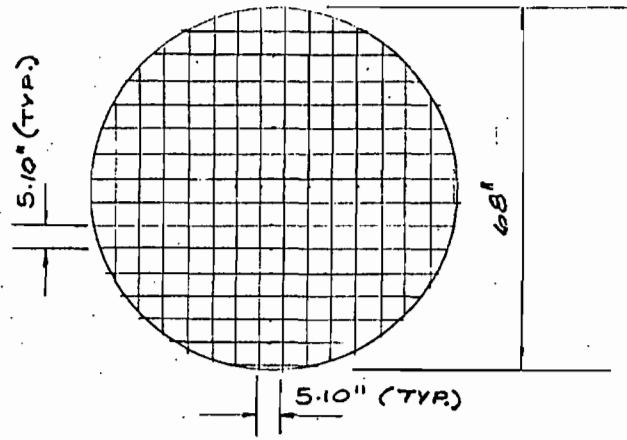
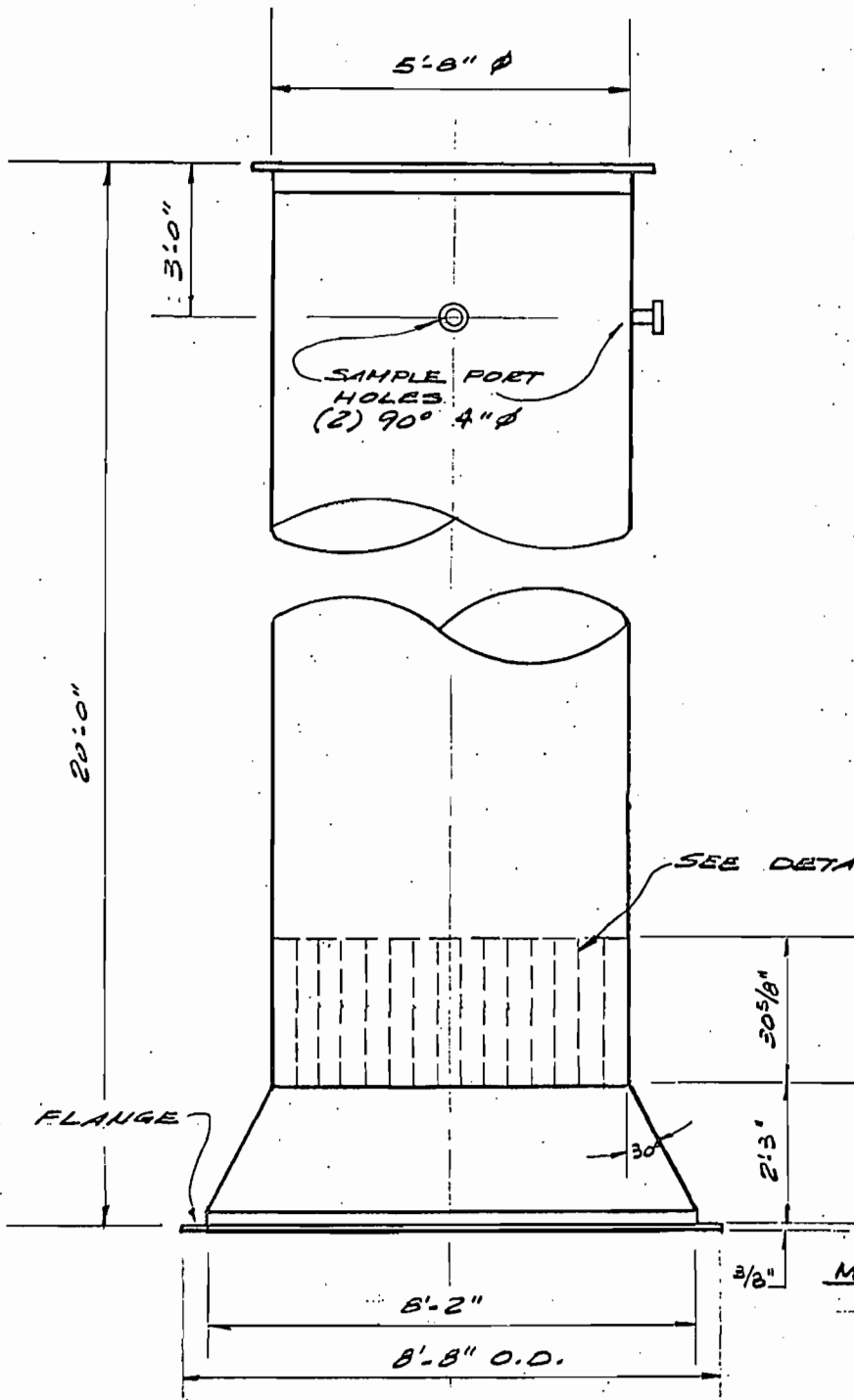
<p><b>FLOW DIAGRAM</b>  <b>BOILER #4</b></p>		<p>GULF WESTERN FOOD PRODUCTS CO.          OKEELANTA DIVISION</p>	
		<p>SCALE N.T.S.</p>	<p>DATE 11-20-74</p>
<p>DRAWN BY GILLESPIE</p>		<p>DWG.</p>	
<p>CHECKED BY</p>		<p>№ 44-ED-23-B-2</p>	

GASES TO ATMOSPHERE



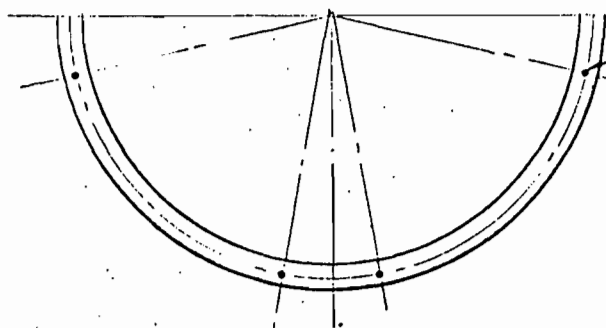
*J. K. O.*

<p>FLOW DIAGRAM          POLLUTION CONTROL          EQUIPMENT BOILER #4</p>	<p>GULF + WESTERN FOOD PRODUCTS CO.          OKEELANTA DIVISION</p>	
	<p>SCALE L.T.S.</p>	<p>DATE 11-20-74</p>
	<p>DRAWN BY J.K.O.</p>	<p>DWG</p>
	<p>CHECKED BY <i>J.K.O.</i></p>	<p>Nº 44-ED-28-(</p>



DETAIL "A"  
HONEY COMB STRAIGHTENER  
TYPE

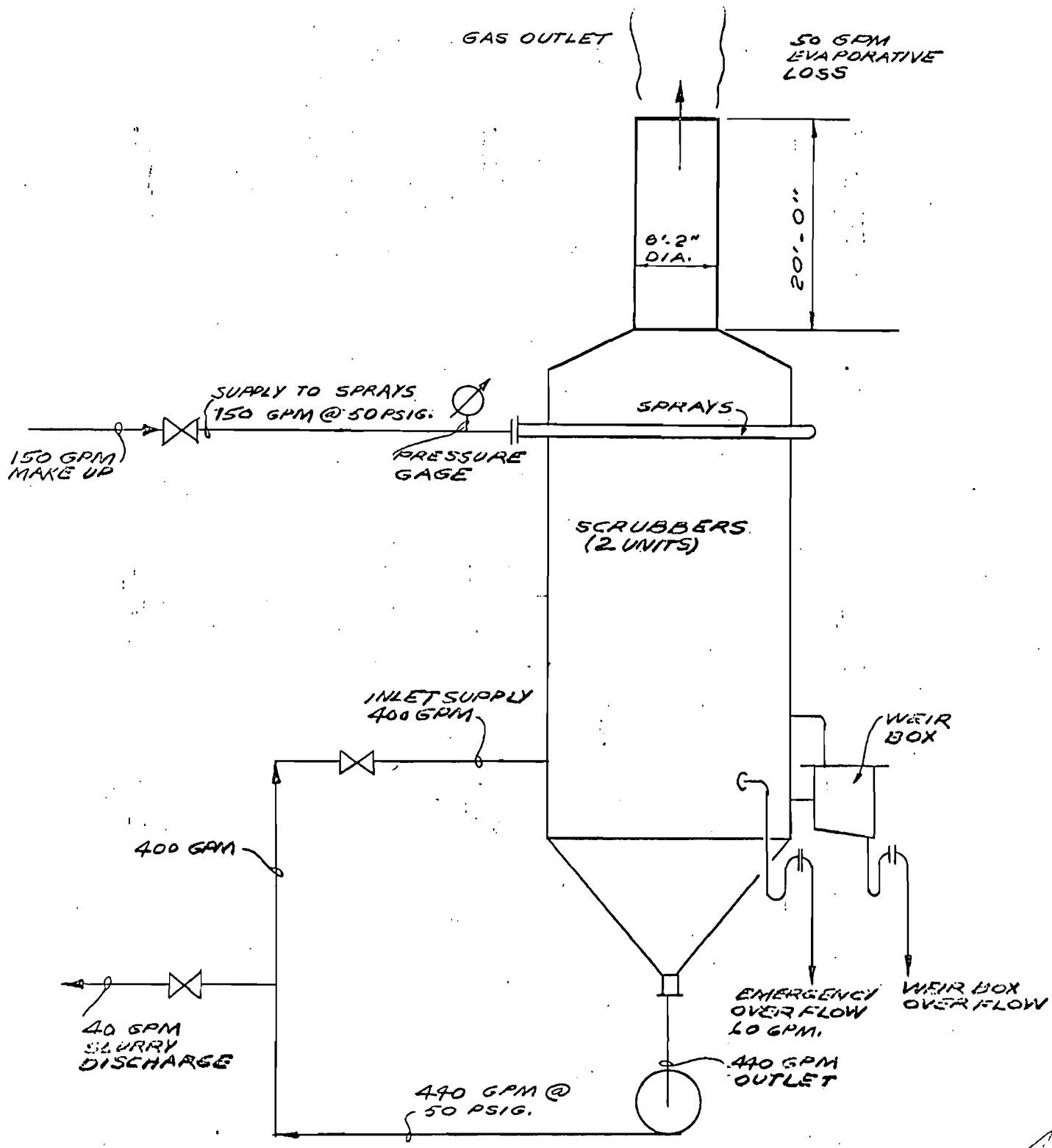
MATERIAL:  
 304 SS, 11 GAUGE.



(80) 9/16" DIAM. HOLES  
 TO STRADDLE  $\Sigma$ s.

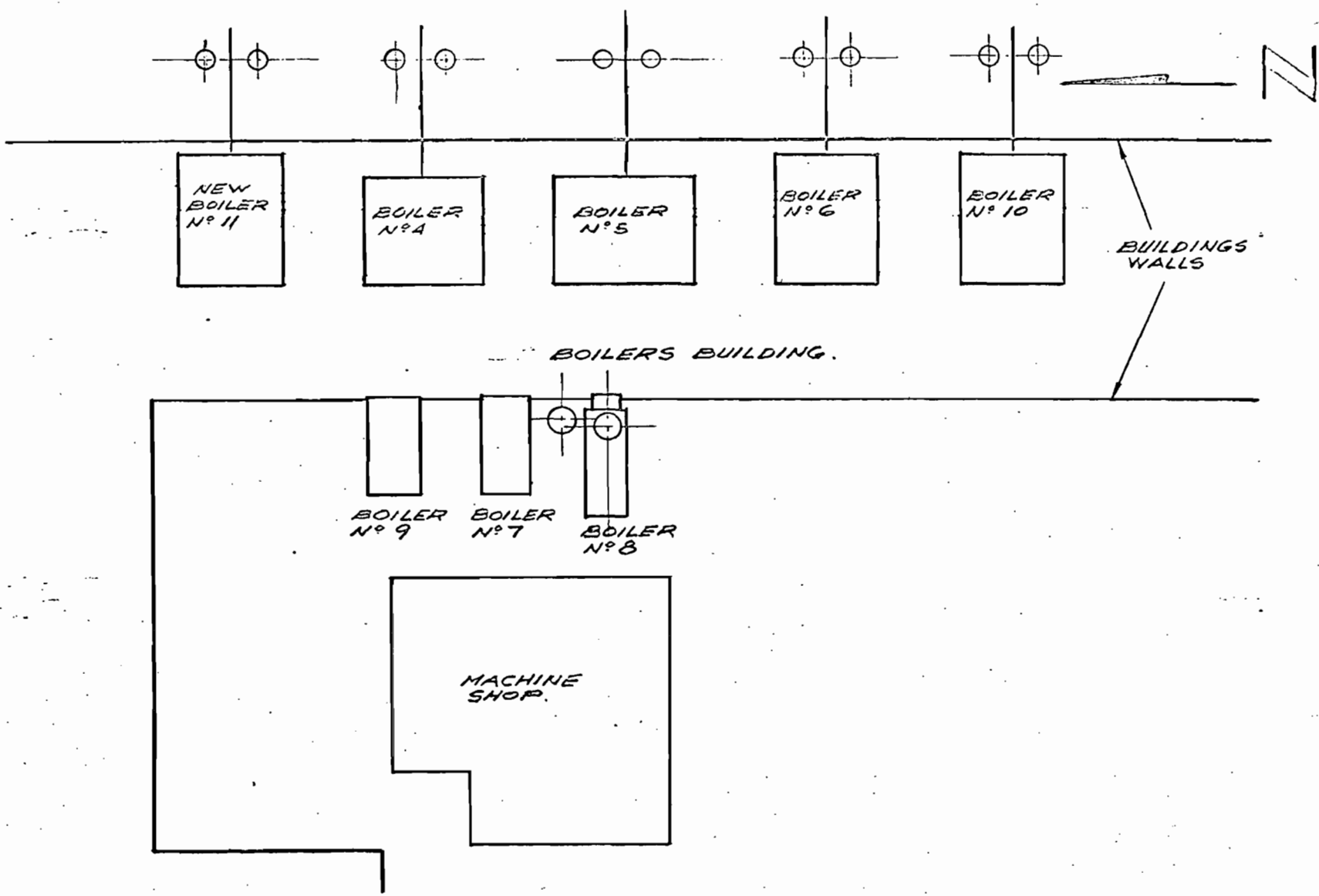
*[Handwritten signature]*

GULF + WESTERN FOOD PRODUCTS CO.  
 ORCELANTA SUGAR DIVISION  
 AIR STRAIGHTENER HONEY  
 COMB TYPE & EXHAUST DUCT



*[Handwritten signature]*

SCRUBBERS WATER BALANCE FOR BOILER N°4	GULF+WESTERN FOOD PRODUCTS CO	
	OKEELANTA DIVISION	
	SCALE N.T.S.	DATE 11-20-74
	DR. BY SARA	DWG. NO. 44-FD-72-D-4
CH. BY	[Signature]	[Signature]



*Guillen*

<u>BOILER # 4</u> <u>SITE LOCATION</u>	GULF WESTERN FOOD PRODUCTS CO.	
	OKEELANTA DIVISION	
	SCALE 1" = 40'-0"	DATE 11-20-74
	DR BY GUILLEN.	DWG. NO.
	CH BY <i>[Signature]</i>	44-ED-28-A-4

# GULF + WESTERN FOOD PRODUCTS COMPANY

## OKEELANTA DIVISION

### SOUTH BAY, FLORIDA

### PLOT PLAN

46A24	46B24	46C24	46D24	46E24
46E24	46F24	46G24	46H24	46I24
46J24	46K24	46L24	46M24	46N24
46O24	46P24	46Q24	46R24	46S24

**KNIGHT FARM**

56DIN	56GIN	56HIN	56IIN
56JIN	56KIN	56LIN	56MIN
56NIN	56OIN	56PIN	56QIN
56RIN	56SIN	56TIN	56UIN
56VIN	56WIN	56XIN	56YIN
56ZIN	56A1N	56B1N	56C1N
56D1N	56E1N	56F1N	56G1N
56H1N	56I1N	56J1N	56K1N
56L1N	56M1N	56N1N	56O1N
56P1N	56Q1N	56R1N	56S1N
56T1N	56U1N	56V1N	56W1N
56X1N	56Y1N	56Z1N	56A2N
56B2N	56C2N	56D2N	56E2N
56F2N	56G2N	56H2N	56I2N
56J2N	56K2N	56L2N	56M2N
56N2N	56O2N	56P2N	56Q2N
56R2N	56S2N	56T2N	56U2N
56V2N	56W2N	56X2N	56Y2N
56Z2N	56A3N	56B3N	56C3N
56D3N	56E3N	56F3N	56G3N
56H3N	56I3N	56J3N	56K3N
56L3N	56M3N	56N3N	56O3N
56P3N	56Q3N	56R3N	56S3N
56T3N	56U3N	56V3N	56W3N
56X3N	56Y3N	56Z3N	56A4N
56B4N	56C4N	56D4N	56E4N
56F4N	56G4N	56H4N	56I4N
56J4N	56K4N	56L4N	56M4N
56N4N	56O4N	56P4N	56Q4N
56R4N	56S4N	56T4N	56U4N
56V4N	56W4N	56X4N	56Y4N
56Z4N	56A5N	56B5N	56C5N
56D5N	56E5N	56F5N	56G5N
56H5N	56I5N	56J5N	56K5N
56L5N	56M5N	56N5N	56O5N
56P5N	56Q5N	56R5N	56S5N
56T5N	56U5N	56V5N	56W5N
56X5N	56Y5N	56Z5N	56A6N
56B6N	56C6N	56D6N	56E6N
56F6N	56G6N	56H6N	56I6N
56J6N	56K6N	56L6N	56M6N
56N6N	56O6N	56P6N	56Q6N
56R6N	56S6N	56T6N	56U6N
56V6N	56W6N	56X6N	56Y6N
56Z6N	56A7N	56B7N	56C7N
56D7N	56E7N	56F7N	56G7N
56H7N	56I7N	56J7N	56K7N
56L7N	56M7N	56N7N	56O7N
56P7N	56Q7N	56R7N	56S7N
56T7N	56U7N	56V7N	56W7N
56X7N	56Y7N	56Z7N	56A8N
56B8N	56C8N	56D8N	56E8N
56F8N	56G8N	56H8N	56I8N
56J8N	56K8N	56L8N	56M8N
56N8N	56O8N	56P8N	56Q8N
56R8N	56S8N	56T8N	56U8N
56V8N	56W8N	56X8N	56Y8N
56Z8N	56A9N	56B9N	56C9N
56D9N	56E9N	56F9N	56G9N
56H9N	56I9N	56J9N	56K9N
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56T9N	56U9N	56V9N	56W9N
56X9N	56Y9N	56Z9N	56A0N
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56F33N	56G33N	56H33N	56I

STATE OF FLORIDA  
DEPARTMENT OF AIR AND WATER  
POLLUTION CONTROL

CONSTRUCTION PERMIT

FOR Gulf & Western Food Products, Co.  
Okeelanta Sugar Division, P.O. Box 86  
South Bay, Florida 33493

PERMIT NO. AC50-2055A

DATE 12-23-74

PURSUANT TO THE PROVISION OF SECTION 403.061 (16) OF CHAPTER 403, FLORIDA STATUTES AND CHAPTER 17-4 FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO: Mr. Arthur Kirstein III, Vice Pres. & General Manager

FOR THE CONSTRUCTION OF THE FOLLOWING:

Scrubber system for Boiler #5 consisting of two Joy Model 56-D-SS  
Impingement scrubbers

LOCATED AT 4 miles West of U.S. Hwy. 27, 8 miles So. West of South Bay  
Lat: 26° 35' 00'' - Long: 80° 45' 00''

IN ACCORDANCE WITH THE APPLICATION DATED 11-22-74  
AND IN CONFORMITY WITH THE STATEMENTS AND SUPPORTING DATA ENTERED THEREIN,  
ALL OF WHICH ARE FILED WITH THE DEPARTMENT AND ARE CONSIDERED A PART OF THIS  
PERMIT.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ITS ISSUANCE UNTIL 11-30-75  
AND SHALL BE SUBJECT TO ALL APPLICABLE LAWS OF THE STATE AND THE RULES AND REG-  
ULATIONS OF THE DEPARTMENT.

P. R. Edwards  
P. R. Edwards  
Regional Administrator

Peter P. Baljet  
Executive Director

STATE OF FLORIDA

DEPARTMENT OF POLLUTION CONTROL

CONSTRUCTION PERMIT PROVISOS

AIR POLLUTION SOURCES

Permit No. AC50-2055A

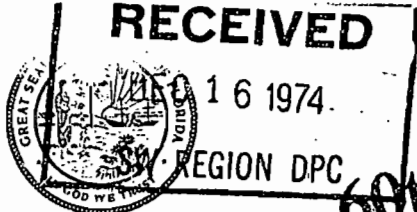
Date: 12-23-74

- (X) 1. Construction of this installation shall be completed by 8-15-74. Application for Permit to Operate to be submitted by 11-30-75.
- (X) 2. This construction permit expires on 11-30-75 following an initial period of operation for appropriate testing to determine compliance with the Rules of the Florida Pollution Control Board.
- (X) 3. All applicable rules of the Department including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction.
- (X) 4. The applicant shall continue the retention of the engineer of record for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. A report of such inspection shall be submitted by the engineer to the Department of Pollution Control for consideration toward the issuance of an operation permit.
- (XX) 5. This boiler shall be tested\* for Particulates within 30 days after it is placed in operation. These test results are required prior to our issuance of an operation permit and shall be submitted in duplicate to the DPC Southwest Region Florida Regional Office 2180 W. First St., Suite 401, Ft. Myers, Florida 33901
- \*FUEL ANALYSIS MAY BE SUBMITTED FOR REQUIRED SULFUR DIOXIDE EMISSION TEST.
- ( ) 6. The operation of this installation shall be observed for visible emissions in accordance with Method 9 - Visible Determination of the Opacity of Emissions from Stationary Sources (36FR24895; Federal Register, December 23, 1971). The observation results are required prior to our issuance of an operation permit, and shall be submitted in duplicate to the DPC Florida Regional Office,
- (X) 7. Satisfactory ladders, platforms, and other safety devices shall be provided/available as well as necessary ports to facilitate the carrying out of an adequate sampling program.
- (X) 8. There shall be no discharges of liquid effluents or contaminated runoff from the plant site.
- (X) 9. All fugitive dust generated at this site shall be adequately controlled.



- (X) 10. Submit, within (60) days upon receipt of this permit, the scrubbers design operating data as specified by the manufacturer including pressure drop, water flow rates, etc.
- (X) 11. This boiler shall not be operated after July 1, 1975 without the control system indicated on this permit being installed and operational.

PERMITTED BY  
SOUTHWEST REGION  
DEPT. OF POLLUTION CONTROL  
PERMIT NO. AC 50-2055A  
DATE 12/31/74



AP-52

BOILER #5

60th Day  
FEB 1 1975

STATE OF FLORIDA  
DEPARTMENT OF POLLUTION CONTROL

APPLICATION TO ~~OPERATE~~ CONSTRUCT POLLUTION SOURCES

SECTION I - GENERAL INFORMATION FOR ALL POLLUTION SOURCES  
I TO BE FILLED IN BY APPLICANT

Source Type: Air Pollution  
 Type application:  Operation  Temporary Operation  Construction  
 Status Source:  New  Existing  Modification  
 Source Name: Gulf + Western Food Products Co.  
Okeelanta Sugar Division County: Palm Beach  
 Source Location: Street: 4 Miles West of U.S. Hwy. 27,  
8 Miles Southwest of South Bay City: South Bay  
 (XXXXXXX) Lat: 26 ° 35 ' 100 " Long: 45 ° 00 ' 00 "  
 (Air Source Only) UTM: East \_\_\_\_\_ North \_\_\_\_\_  
 Appl. Name and Title: Arthur Kirstein III, Vice-President & General Manager  
 Appl. Address: P.O. Box 86, South Bay, Florida 33493

II TO BE FILLED IN BY REGION (\*BY BUREAU OF PERMITTING)

Control No: Region \_\_\_\_\_ County \_\_\_\_\_ Type \_\_\_\_\_ \*Project \_\_\_\_\_

Type Permit	Date Rec'd	*Permit No.	*Issue Date	*Compl. Date	*Exp. Date
_____	_____	_____	_____	_____	_____

Source Description: \_\_\_\_\_  
 Control Equipment: \_\_\_\_\_

Water Permits

Receiving Body Code: \_\_\_\_\_ Surface Water Code: \_\_\_\_\_  
 Station No.: Influent: \_\_\_\_\_ Effluent: \_\_\_\_\_

Effluent:	Average	Design	% Reduction
Flow rate, MGD	_____	_____	_____
BOD, lbs/day	_____	_____	_____
Susp. Sol., lbs/day	_____	_____	_____
Other: _____	_____	_____	_____

Air Permits

Operating Time:  Continuous  Intermittent  
 Fuel: Type Bagasse & #6 Fuel Oil M-BTU/hr. In Put 249.0 x 10<sup>6</sup>  
 Incinerator: Capacity, tons/day \_\_\_\_\_ Type Waste \_\_\_\_\_  
 Mfg. & Model \_\_\_\_\_

Pollutant Emissions, lbs/day	Actual	Design	Allowable
Particulate	_____	_____	_____
Sulfur Oxides	_____	_____	_____
Other: _____	_____	_____	_____

Implementation: Estimated Appl. Filing Date November 1974  
 Estimated Start of Const. July 1975 Estimated Compliance Date October 1975

RECEIVED  
 DEC 30 1974  
 Division of Environmental Health  
 PALM BEACH COUNTY  
 HEALTH DEPT.

## DESCRIPTION OF PROPOSED PROJECT

A. Describe the nature and extent of the proposed project. Refer to existing pollution control facilities, DPC permits, conditions, orders and notices, expected improvement in performance of the facilities and state whether the proposed project will result in full compliance of the source. Attach additional sheet if necessary.

The proposed project consists in the installation of two (2) Joy Impinger Scrubbers, model 56-D-55 to receive the flue gases from the existing #5 boiler and reduce the particulate emissions to meet the existing Florida Standards of 0.3# per million BTU Heat Input. This installation will be provided with the necessary dampers to by-pass the scrubbers in order to make emergency repairs or cleanings.

B. Schedule of Project Covered in this Application (Construction Permit Application Only).

Federally or State Financed Projects only:

Planning Complete \_\_\_\_\_ N/A

Financing Program Complete \_\_\_\_\_

Indicate other local, state and/or federal agency approvals and dates \_\_\_\_\_

All projects:

Start of Construction \_\_\_\_\_ July 1975

Completion of Construction \_\_\_\_\_ October 1975

C. Costs of Construction (Show a breakdown of costs for individual components/units of the proposed project serving pollution control purpose only). Information on actual costs shall be furnished with the application for operation permit.

Two (2) Joy Turbulaire Scrubbers model 56-D-55	35,000
Two (2) 20'-0" S.S. Stacks with honey comb straighteners & parts	24,000
New turbine & gear drive to increase capacity I.D. Fan	15,000
Pumps, piping, instruments & installation	15,000
Duct work from I.D. to Scrubbers, foundations & installations	20,000

NOTE: The Okeelanta Sugar Mill will resume operations for the 1975-76 Crop during the month of October.

D. Indicate any previous DPC permits, issuance dates, and expiration dates.

Boilers Nos. 2 & 3	- Permit No. A0-50-2054	Date 5-23-73	expires 7-1-75
" No. 4	" No. A0-50-2053	" "	" "
" No. 5	" No. A0-50-2055	" "	" "
" No. 6	" No. A0-50-2056	" "	" "
" No. 7	" No. A0-50-2218	" 12-11-73	" 2-8-75
" No. 8	" No. A0-50-2219	" "	" "
" No. 9	" No. A0-50-2220	" "	" "

### AIR POLLUTION SOURCES & CONTROL DEVICES

**A. Identification of Air Contaminants**

- 1)  Particulates
  - a)  Dust
  - b)  Fly Ash
  - c)  Smoke
  - d)  Other (Identify)
- 2)  Sulfur Compounds
  - a)  SO<sub>x</sub> as SO<sub>2</sub>
  - b)  Reduced Sulfur as H<sub>2</sub>S
  - c)  Other (Identify)
- 3)  Nitrogen Compounds
  - a)  NO<sub>x</sub> as NO<sub>2</sub>
  - b)  NH<sub>3</sub>
  - c)  Other (Identify)
- 4)  Fluorides
- 5)  Acid Mist
- 6)  Odor
- 7)  Hydrocarbons
- 8)  Volatile Organic Compounds
- 9)  Other (Specify): \_\_\_\_\_

**B. Raw Materials and Chemicals Used (Be Specific)**

Description	Utilization Tons/day, lbs./day, etc.	Approximate Contaminant Content		Relate to Flow Diagram
		Type	% Wt.	
N/A	N/A	N/A	N/A	N/A

**C. Process Weight:**

- 1) Total Process Weight Rate 57,500 lbs./hr. [See Sec. 17-2.04(2)]
- 2) Product Weight 125,000 lb./hr. expressed as steam at 250 psig. & 550° FTT
- 3) Normal Operating Time 24 hrs/day, 7 days/week, if seasonal describe: 100% by month and 18-20 weeks per year.

**D. Airborne Contaminants Discharged:**

Name of Contaminant	Actual Discharge	Discharge Criteria*	Allowable Discharge*	Relate Location to Flow Diagram
Particulate	71 lbs/hr.	0.3#/MBTU/hr.	74.7 lbs/hr.	See sketch
Sulfur Compounds	39.85 "	-	-	"
Carbon Monoxides	0.005 "	-	-	"
Nitrogen Oxides	13.0 "	-	-	"
Hydro carbons	"	-	-	"

\* Refer to Chapter 17-2 Florida Administrative Code  
(Discharge Criteria: Process Weight Rate, #/tonP<sub>2</sub>O<sub>5</sub>, #/M BTU/hr etc.)

E. Control Devices:

Name	2 Joy Impinger Scrubbers	Conditions of Operation, Particle Size Range, etc.	Relate to Flow Diagram
Model	56-D-SS		
S. No.	0-74-438-04A	Continuos	
	0-74-438-04B	10-420 microns	See sketch

F. Fuels:

Type (Be specific)	Daily Consumption	Heat Input BTU/hr.	Relate to Flow Diagram
56% Moisture Bagasse	1,380,000 lbs.	$230.0 \times 10^6$	
#6 Fuel oil, 2% sulfur	24,300 lbs.	$19.0 \times 10^6$	

G. Describe briefly, without revealing trade secrets, the unit processes/operations generating the airborne emissions identified in this application:

The existing #5 boiler is supplied with hot condensate water at 230°F, 56% moisture bagasse and #6 Bunker C fuel oil with 2% sulfur are fired at the same time to generate 125,000#/hr. steam at 250#/psig. and 550°F

H. Indicate liquid or solid wastes generated and method of disposal.

P. Alkalinity	PPM as Ca CO <sub>3</sub>	=	200-600
Hydrate Alkalinity	PPM as Ca CO <sub>3</sub>	=	20-600
Chloride	PPM as Cl	=	0-150
Phosphate	PPM as PO <sub>4</sub>	=	30-150
Sulphate	PPM as SO <sub>3</sub>	=	30-50
Total dissolved solids	PPM	=	1850-2500

The blow down water from the boiler will be discharged into the main mill waste ditch. This water is used to flood the cane fields and it is impounded and controlled within the farms private land.

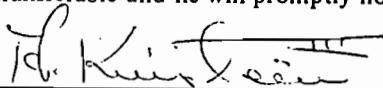
Approximately 134 GPM of Slurry from the Scrubbers will be discharged into the main mill waste ditch and used to flood the cane fields, and it will be impounded and controlled within the farms private land. See sketch #44-ED-27-A-5, #44-ED-27-B-5, #44-ED-27-C-5, & #44-ED-27-D-5.

STATEMENTS BY APPLICANT AND ENGINEER

A. Applicant

Gulf + Western Food Products Co.

The undersigned owner or authorized representative of \* Okeelanta Sugar Division is fully aware that the statements made in this application for a two scrubbers installation permit are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403 Florida Statutes and all the rules and regulations of the Department or revisions thereof. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted establishment.



Signature of the Owner or Authorized Representative

Arthur Kirstein III, Vice-President & General Manager

Name and Title (Please Type)

Date: \_\_\_\_\_ Telephone No.: 996-9072

\* Attach a letter of authorization

B. Professional Engineer Registered in Florida:

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the control and discharge of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution source(s) with appropriate control facilities, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and the rules and regulations of the Department. It is also agreed that the undersigned will furnish the applicant a set of instructions for the proper maintenance and operation of the installation covered in this application.

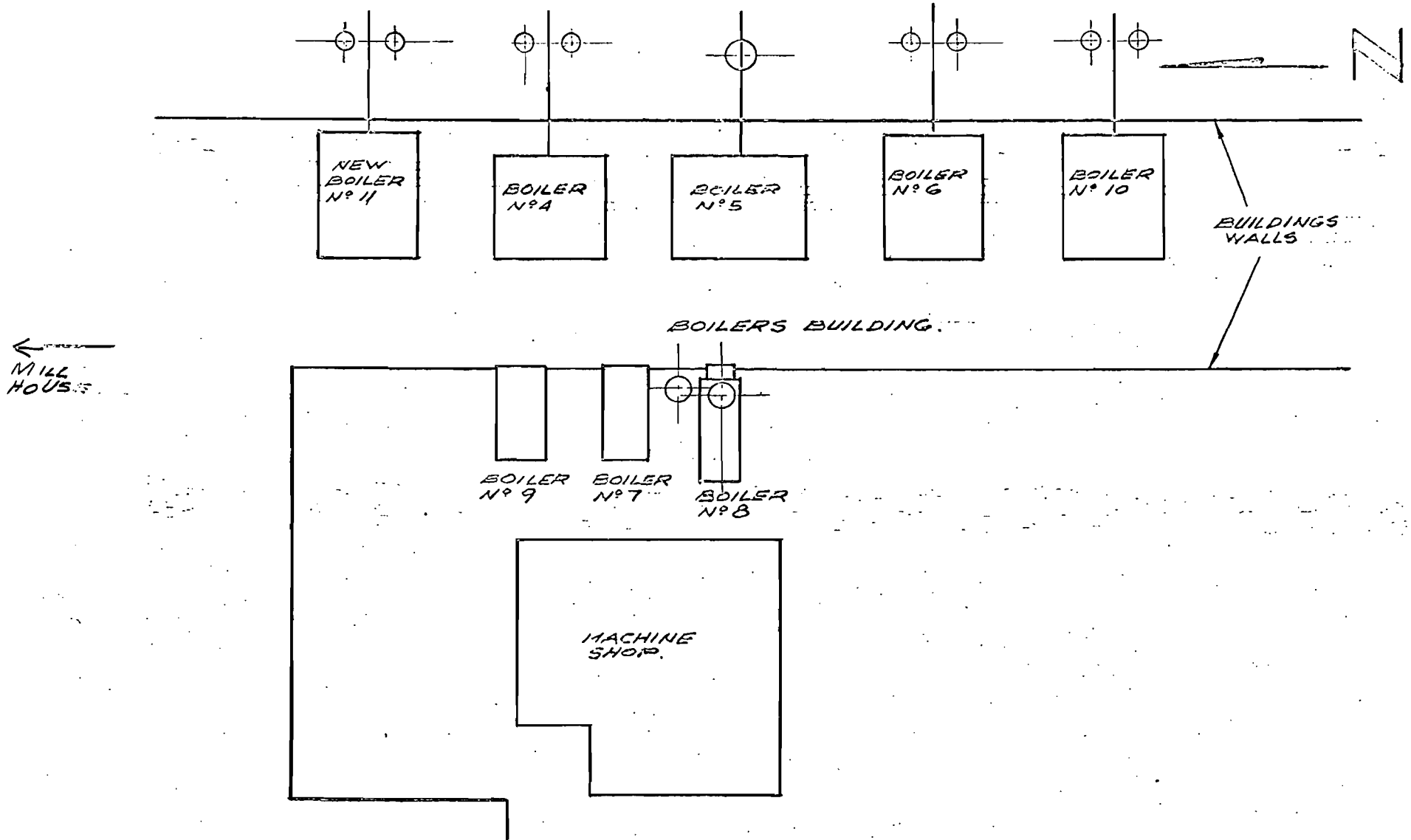
Signature \_\_\_\_\_

Name: Angel M. Tellechea  
(please type)

Mailing Address: P.O. Box 837  
Coconut Grove Station  
Miami, Florida 33133  
Telephone No.: 444-7879

Florida Registration Number 12343  
(Please affix seal)

Date: November 22, 1974



←  
MILL  
HOUSE

BUILDINGS  
WALLS

BOILERS BUILDING

BOILER  
N° 9

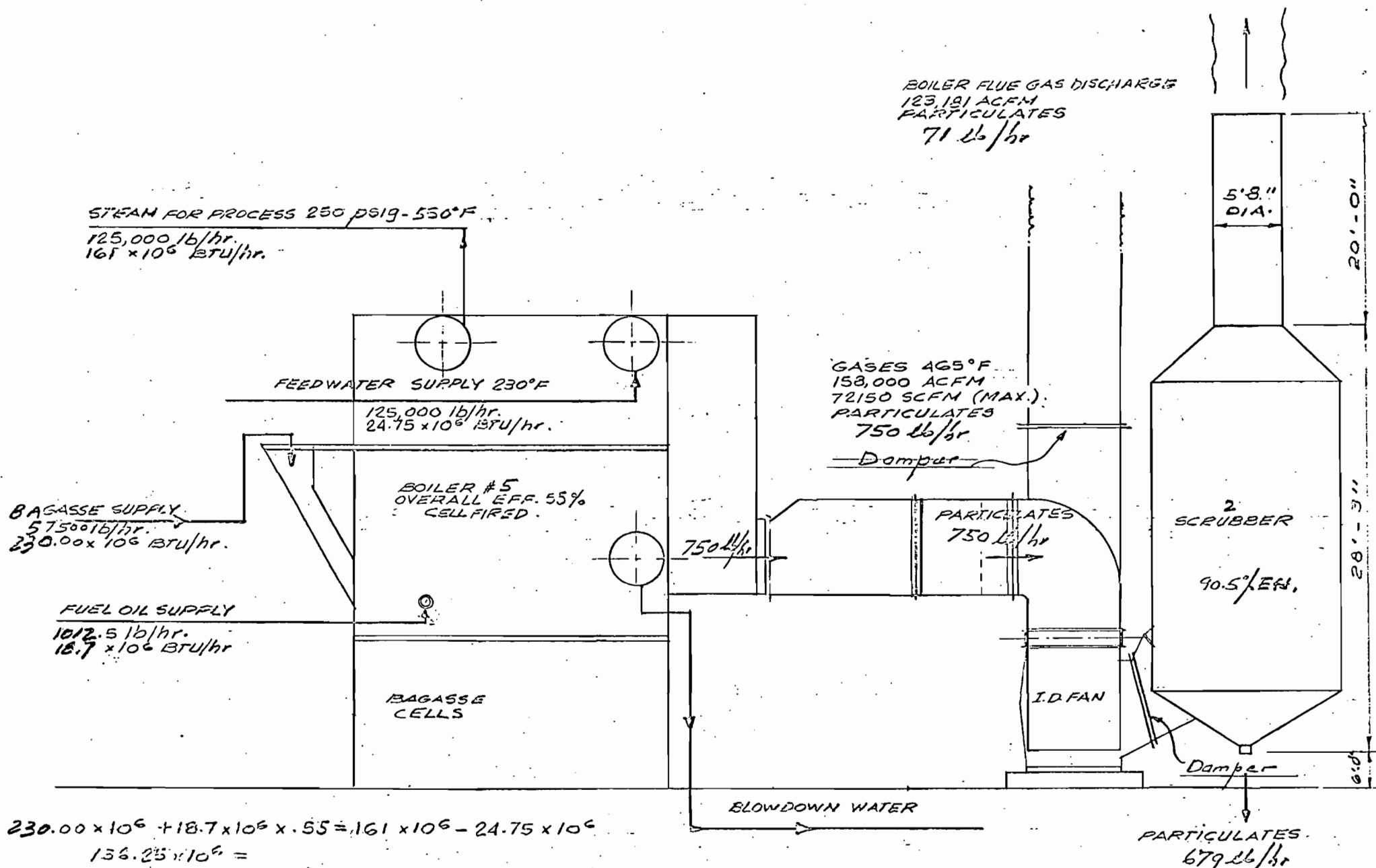
BOILER  
N° 7

BOILER  
N° 8

MACHINE  
SHOP

*Handwritten signature*

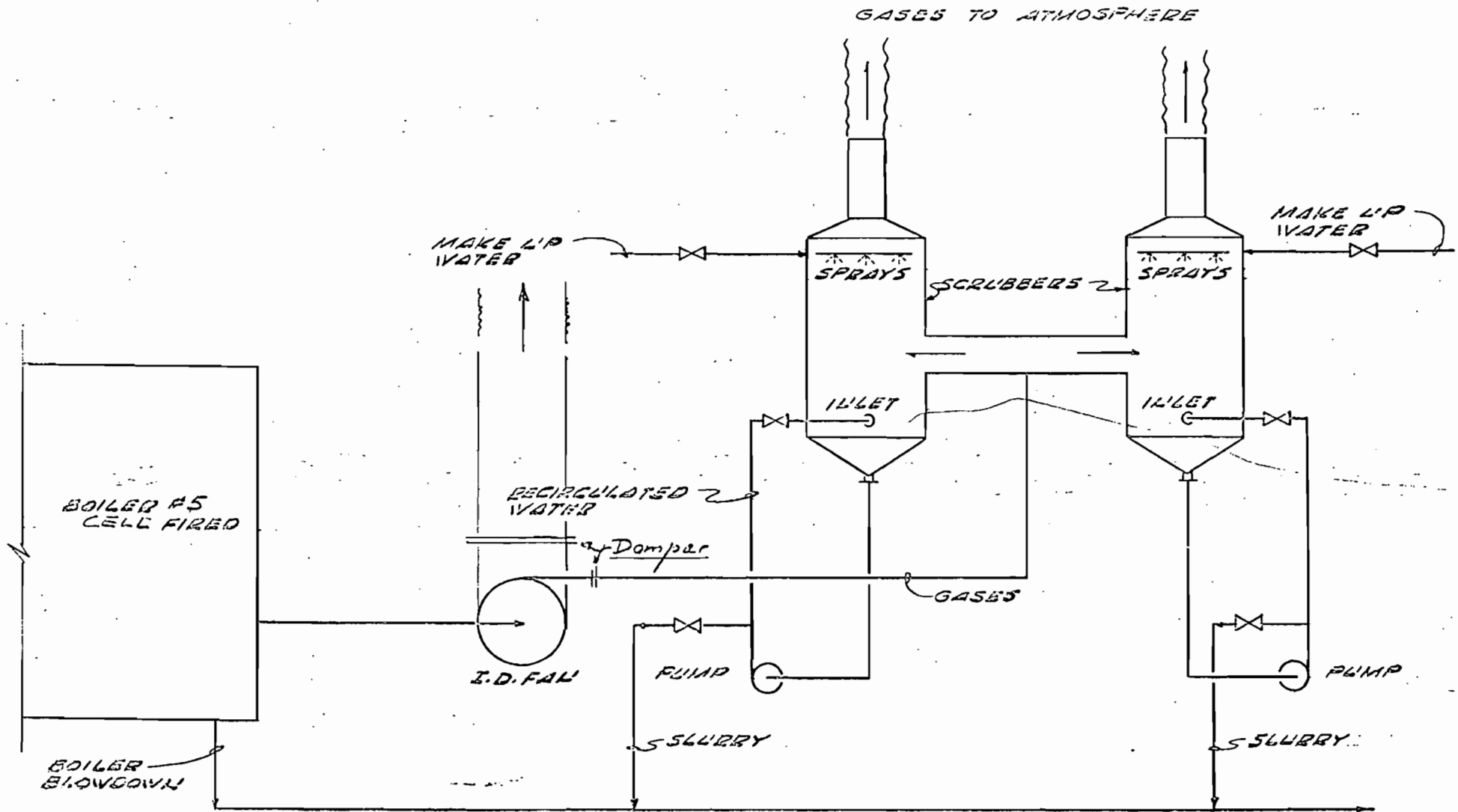
<u>BOILER # 5</u> <u>SITE LOCATION</u>	GULF WESTERN FOOD PRODUCTS CO	
	OKEELANTA DIVISION	
	SCALE 1" = 40'-0"	DATE 11-20-74
	DR BY GILLEN	DWG. NO.
CH BY	44-ED-27-A-5	



*Guillen*

<b>FLOW DIAGRAM</b>		GULF WESTERN FOOD PRODUCTS CO.	
<b>BOILER #5</b>		OKEELANTA DIVISION	
SCALE N.T.S.	DATE 11-20-74	DRAWN BY GUILLEN.	DWG. NO 44-ED-27-B-5
CHECKED BY			





FLOW DIAGRAM  
 POLLUTION CONTROL  
 EQUIPMENT BOILER #5

GULF+WESTERN FOOD PRODUCTS CO.  
 OKEELANTA DIVISION

SCALE 1/2" = 1'

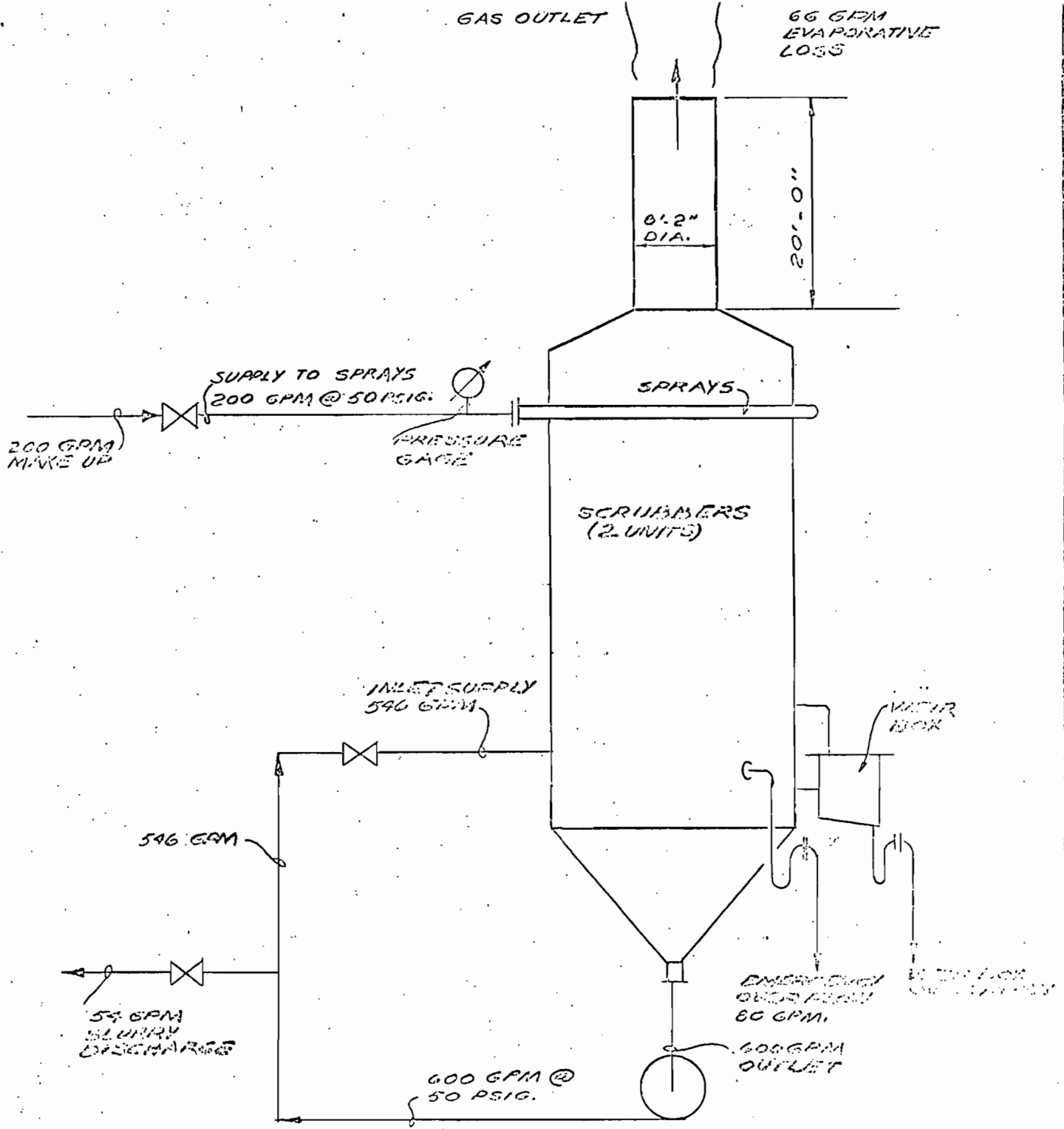
DATE 11-20-74

DRAWN BY J.K.O.

DWG

CHECKED BY

Nº 44-ED-27-C



*SARA*  
11-30-75

<b>SCRUBBERS WATER BALANCE FOR BOILER N° 5</b>	GULF WESTERN FOOD PRODUCTS CO	
	OKEELANTA DIVISION	
	SCALE N.T.S.	DATE 11-30-75
	DR. BY SARA	DWG. NO. 4.4-FD-27.0-5

# GULF + WESTERN FOOD PRODUCTS COMPANY OKEELANTA DIVISION SOUTH BAY, FLORIDA PLOT PLAN

46A24	46B24	46C24	46D24	46E24
46E24	46F24	46G24	46H24	46I24
46J24	46K24	46L24	46M24	46N24
46O24	46P24	46Q24	46R24	46S24

**KNIGHT FARM**

S.H. 827

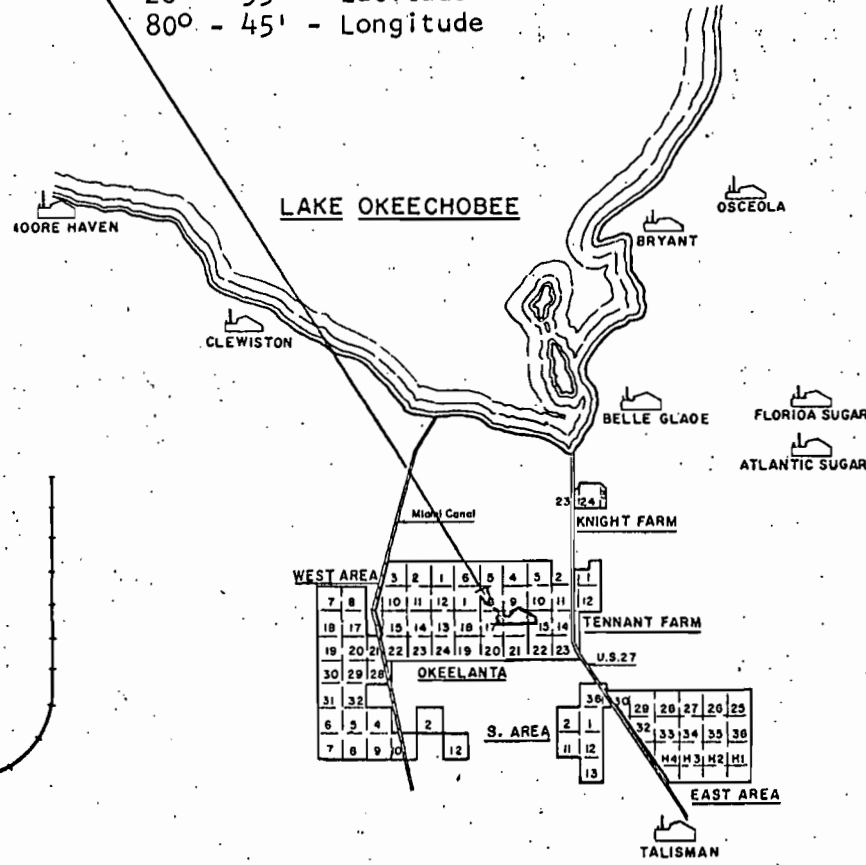
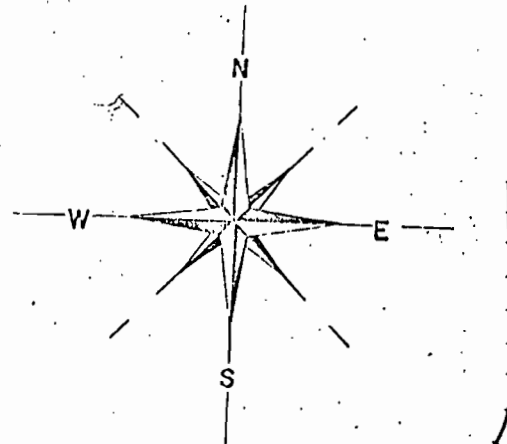
56A	56B	56C	56D	56E	56F	56G	56H	56I	56J	56K	56L	56M	56N	56O	56P	56Q	56R	56S	56T	56U	56V	56W	56X	56Y	56Z
56AA	56AB	56AC	56AD	56AE	56AF	56AG	56AH	56AI	56AJ	56AK	56AL	56AM	56AN	56AO	56AP	56AQ	56AR	56AS	56AT	56AU	56AV	56AW	56AX	56AY	56AZ

**TENNANT FARM**

ROWER AND SUGAR

1C	1B	1A
2C	2B	2A
3C	3B	3A
4C	4B	4A
5C	5B	5A
6C	6B	6A
7C	7B	7A
8C	8B	8A
9C	9B	9A
10C	10B	10A
11C	11B	11A
12C	12B	12A
13C	13B	13A
14C	14B	14A
15C	15B	15A

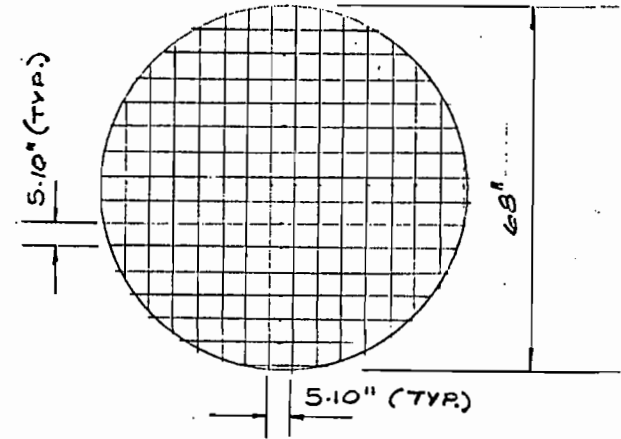
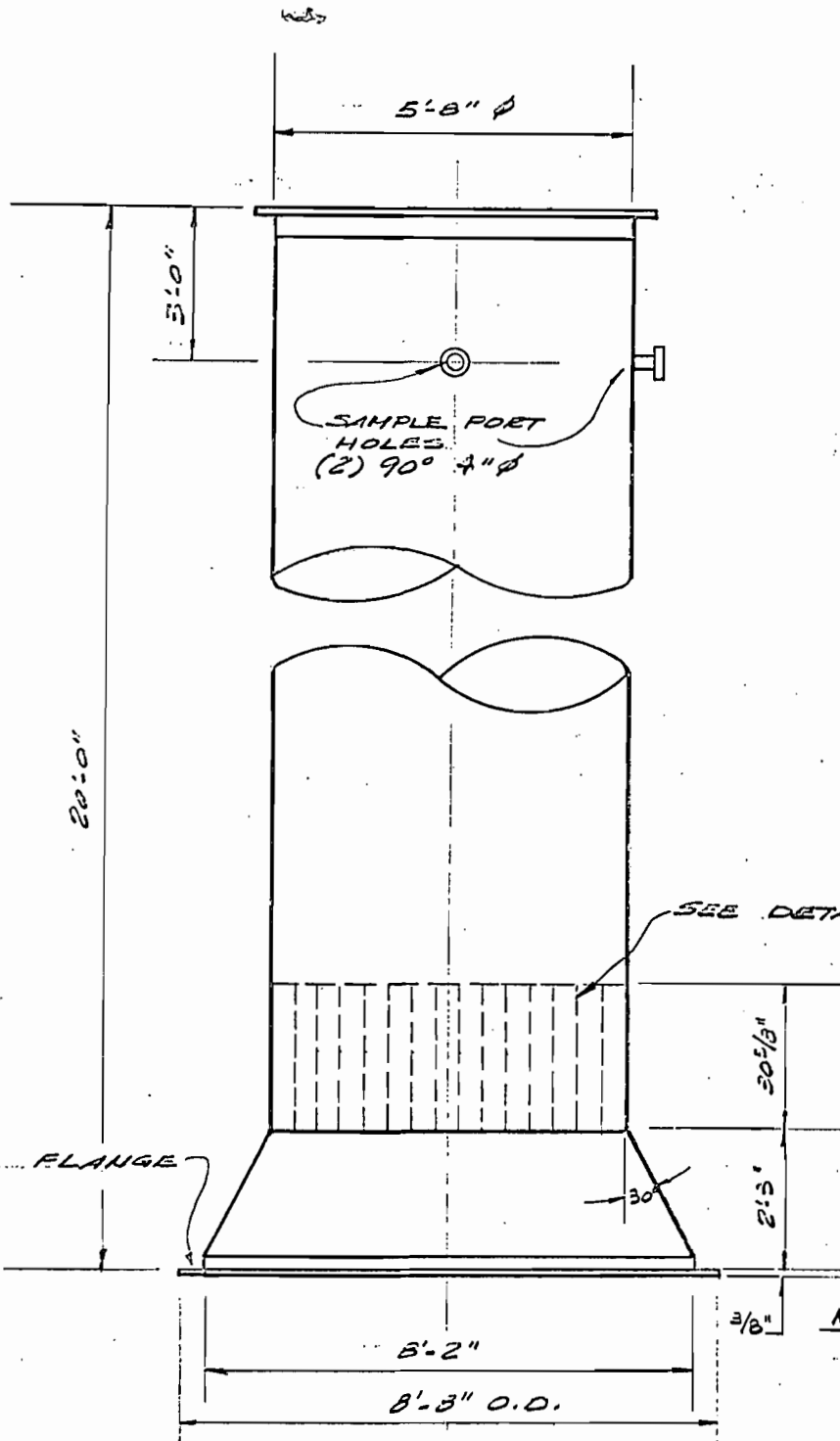
Pollution Control Plant located at Okeelanta Mill Site  
26° - 35' - Latitude  
80° - 45' - Longitude



WEST AREA	3	2	1	6	5	4	5	2	1													
7	8	10	11	12	1	9	10	11	12													
18	17	15	14	13	18	17	15	14	13													
19	20	21	22	23	24	19	20	21	22	23												
30	29	28	OKEELANTA							23	24											
31	32	S. AREA							30	31												
6	3	4	2	EAST AREA							2	1										
7	8	9	10	12	TENNANT FARM							11	12									
										13	14	15	16	17	18	19	20	21	22	23	24	25

North Levee																																																								
F47	F46	F45	F44	F43	F42	F41	F40	F39	F38	F37	F36	F35	F34	F33	F32	F31	F30	F29	F28	F27	F26	F25	F24	F23	F22	F21	F20	F19	F18	F17	F16	F15	F14	F13	F12	F11	F10	F9	F8	F7	F6	F5	F4	F3	F2	F1										
E46	E45	E44	E43	E42	E41	E40	E39	E38	E37	E36	E35	E34	E33	E32	E31	E30	E29	E28	E27	E26	E25	E24	E23	E22	E21	E20	E19	E18	E17	E16	E15	E14	E13	E12	E11	E10	E9	E8	E7	E6	E5	E4	E3	E2	E1											
D45	D44	D43	D42	D41	D40	D39	D38	D37	D36	D35	D34	D33	D32	D31	D30	D29	D28	D27	D26	D25	D24	D23	D22	D21	D20	D19	D18	D17	D16	D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1												
C43	C42	C41	C40	C39	C38	C37	C36	C35	C34	C33	C32	C31	C30	C29	C28	C27	C26	C25	C24	C23	C22	C21	C20	C19	C18	C17	C16	C15	C14	C13	J1W	J1E	J1W	J1E	K1W	K1E																				
																								I2W	I2E	J2W	J2E	K2W	K2E																											
																								L3W	L3E	J3W	J3E	K3W	K3E																											
																								L4W	L4E	J4W	J4E	K4W	K4E																											
																								A5E	B5W	B5E	C5W	C5E	D5W	D5E	E5W	E5E	F5W	F5E	G5W	G5E	H5W	H5E	I5W	I5E	J5W	J5E	K5W	K5E												
																								B6W	B6E	C6W	C6E	D6W	D6E	E6W	E6E	F6W	F6E	G6W	G6E	H6W	H6E	I6W	I6E	J6W	J6E	K6W	K6E													
																								B7W	B7E	C7W	C7E	D7W	D7E	E7W	E7E	F7W	F7E	G7W	G7E	H7W	H7E	I7W	I7E	J7W	J7E	K7W	K7E													
																								A8W	A8E	C8W	C8E	D8W	D8E	E8W	E8E	F8W	F8E	G8W	G8E	H8W	H8E	I8W	I8E	J8W	J8E	K8W	K8E													
																								Canal																																
																								East Levee																																

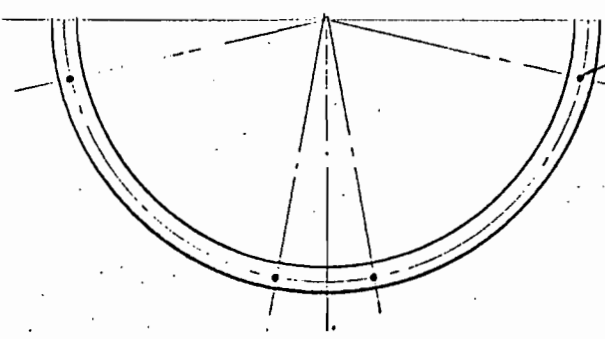
*Handwritten signature/initials*



DETAIL "A"  
HONEY COMB STRAIGHTENER  
TYPE

MATERIAL:  
 304 SS, 11 GAUGE

*[Handwritten signature]*



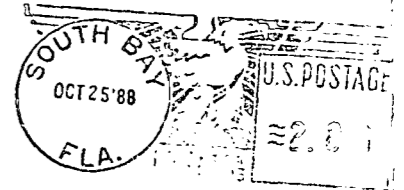
(80) 9/16" DIAM. HOLES  
 TO STRADDLE C.S.

GULF + WESTERN FOOD PRODUCTS &  
 ORCELANTA SUGAR DIVISION

AIR STRAIGHTENER HONEY  
 COMB TYPE & EXHAUST DUCT

SCALE: NO

DATE: 11-20-74



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**Okeelanta Corporation**  
  
Okeelanta Corporation  
P. O. Box 86  
South Bay, Florida 33493

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**MR. CLAIRE FANCY**  
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**2600 BLAIR STONE ROAD**  
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