

AC50-42476

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee		
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
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From: _____	Date: _____	
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Date Due: _____	Date Due: _____	

TO: Victoria J. Tschinkel

FROM: C. H. Fancy

DATE: October 28, 1981

SUBJ: Approval and Signature of Attached Air
Construction Permit described below.

Attached please find one Air Construction Permit for which the applicant is Sugar Cane Growers Cooperative. The proposed construction is a bagasse boiler in Palm Beach County, Florida.

The date after which the permit would be issued by default is October 28, 1981.

The Bureau recommends your approval and signature.

CHF/bjm

Attachment

P16 7682481

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

SENT TO <i>Reggie R. Arias</i>	CERTIFIED FEE	¢
STREET AND NO. <i>P.O. Box 666</i>	SPECIAL DELIVERY	¢
P.O. BOX AND ZIP CODE <i>Belle Glade, 33438</i>	RESTRICTED DELIVERY	¢
POSTAGE	SHOW TO WHOM AND DATE DELIVERED	¢
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
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PS Form 3800, Apr. 1976

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

October 28, 1981

Mr. Enrique R. Arias
Executive Vice President
Sugar Cane Growers Cooperative
P. O. Box 666
Belle Glade, Florida 33430

RE: Final Determination - Sugar Cane Growers Cooperative,
Application for State and Federal PSD Permits to Con-
struct New Bagasse Boiler (AC 50-42476, PSD-FL-077)

Dear Mr. Arias:

Enclosed please find one copy of the referenced Final Determination. State Permit Number AC 50-42476 is hereby issued as of October 28, 1981, pursuant to Section 403, Florida Statutes. Final approval of the Federal PSD permit, which is incorporated with the state permit, is contingent upon review and acceptance of the permit conditions by the Environmental Protection Agency Region IV office in Atlanta. Questions concerning final issuance of the Federal permit should be directed to Mr. T. Michael Taimi of the EPA office, at (404) 881-2017.

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

Sincerely,

C. H. Fancy, Deputy Chief
Bureau of Air Quality Manage-
ment

cc: T. Michael Taimi, EPA Region IV
Michael Martin, Palm Beach Co. Health Department
Phil Edwards, FDER, South Florida District
David Buff, ESE Consultants

CHF/TP/bjm

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

October 28, 1981

Mr. T. Michael Taimi, Chief
Consolidated Permits Branch
EPA Region IV
345 Courtland Street
Atlanta, Georgia 30365

RE: Final Determination - Sugar Cane Growers
Cooperative Application to Construct New
Bagasse Boiler (PSD-FL-077)

Enclosed please find a copy of the proof of publication of the public notice, the public comments and the Department's response to the public comments, and Final Determination for the referenced project. We recommend that the applicant be granted Authority to Construct, subject to the conditions in the Final Determination.

Sincerely,

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

CHF/TP/bjm

Attachment



STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION

CONSTRUCTION
PERMIT

NO. AC 50-42476
Sugar Cane Growers
Cooperative of Florida

DATE OF ISSUANCE

28 October 1981

DATE OF EXPIRATION

May 31, 1983

The Evening Times

Published Every Weekday
West Palm Beach, Palm Beach County, Florida

PROOF OF PUBLICATION

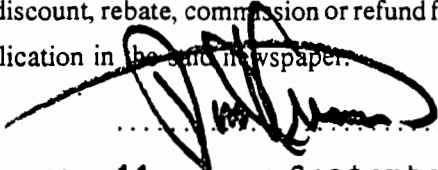
STATE OF FLORIDA

COUNTY OF PALM BEACH

Before the undersigned authority personally appeared ... Don K. Creamer ... who on oath says that he is Class. Adv. Mgr. of The Evening Times, a daily newspaper published at West Palm Beach in Palm Beach County, Florida; that the attached copy of advertising, being a Notice in the matter of Proposed Modification in the Court, was published in said newspaper in the issues of September 11, 1981

Affiant further says that the said The Evening Times is a newspaper published at West Palm Beach, in said Palm Beach County, Florida, and that the said newspaper has heretofore been continuously published in said Palm Beach County, Florida, each weekday and has been entered as second class mail matter at the post office in West Palm Beach, in said Palm Beach County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 11 day of September, A.D. 1981


Barbara M. McGee
NOTARY PUBLIC STATE OF FLORIDA AT LARGE
MY COMMISSION EXPIRES SEPT 9 1983
BONDED THRU GENERAL INS. UNDERWRITERS

NO. 67883

PUBLIC NOTICE

A modification to an existing air pollution source is being proposed by Sugar Cane Growers Cooperative of Florida (SCGC) near the city of Belle Glade, Palm Beach County, Florida. The proposed modification is the construction of a bagasse/residue/fuel oil fired boiler with 264,000 pounds of steam per hour capacity. The modification will increase emissions of pollutants, in tons per year, by the following amounts:

PM	SO2	NOx	CO	VOC
324	805	209	326	325

The proposed modification has been reviewed by the Florida Department of Environmental Regulation under Chapter 403, Florida Statutes, and Federal regulation 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The Department has made a preliminary determination that the summary of the basis for the determination and the application for State and Federal permits submitted by SCGC are available for public review at the following offices:

- Municipal Library, 530 South Main Street, Belle Glade, Florida 33430
- Health and Rehab. Services, Palm Beach County Health Dept., West Palm Beach, Florida 33402
- South Florida District, Dept. of Environmental Regulation, 2269 Bay Street, Fort Myers, Florida 33901
- Bureau of Air Quality Management, Dept. of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32301

No PM or SO2 PSD increments will be consumed by the proposed modification.

Any person may submit written comments regarding the proposed modification. All comments, postmarked not later than 30 days from the date of this notice, will be considered in making a final determination regarding approval of construction of this source. These comments will be made available for public review on request. Furthermore, a public hearing can be requested by any person. Such a request should be submitted within 15 days of the date of this notice. Letters should be addressed to:

Mr. C. H. Fancy
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301
PUBLISH: The EVENING TIMES
September 11, 1981

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

October 28, 1981

Phyllis Lilley
Municipal Library
530 South Main Street
Belle Glade, Florida 33430

RE: Final Determination - Sugar Cane
Growers Cooperative, Application to
Construct a New Bagasse Boiler
(PSD-FL-077)

Dear Ms. Lilley:

Please find enclosed one copy of the Final Determination for the Sugar Cane Growers Cooperative application for a Federal Prevention of Significant Deterioration Construction Permit. As was done with the Preliminary Determination, this information must be available upon request for a period of at least 30 days from the date of this letter.

Again, we appreciate your help in providing this valuable public service. Should you have any questions, please call Tim Powell at (904) 488-1344.

Sincerely,

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

CF/TP/bjm

Attachment

Response to Public Comment

Sugar Cane Growers Cooperative of Florida

(AC 50-42476) (PSD-FL-077)

Comments were received from William H. Green, Counsel for Sugar Cane Growers Cooperative of Florida. Mr. Green requested revision of some specific conditions of the Preliminary Determination. The significant portion of his comments and DER's response are as follows:

Comments 1 and 2; Specific Conditions No. 2 and 3

Mr. Green suggested that the maximum allowable PM emissions should be 276 ton/yr, and that the maximum allowable SO₂ emissions should be 555 lb/hr and 2,025 ton/yr if the emission calculations are based on 0.5% 0.2%, and 1.8 sulfur content in residue, bagasse, and fuel oil, respectively. He also requested that the option listed in the BACT determination, giving the permittee the right to seek revision if the 0.15 lb/MMBTU PM emission limit cannot be met on a continuous basis be addressed in the permit.

Response

Most of this comment is accepted except for the SO₂ maximum allowable emission limits: 555 lb/hr and 2,025² tons/year. The assumed 1.8% sulfur content of the fuel oil has no basis in fact and is unacceptable. Based on projected oil usage the resultant blend in the storage tank should contain 1.15% sulfur. SCGC has pointed out that boiler usage will vary in normal operation, in turn affecting the normal blend required for compliance with overall SO₂ limits. BAQM agrees and has rewritten specific conditions 2 and 3 to provide for fuel purchases resulting in a blend which will reflect the actual fuel usage by specific boiler. Daily oil usage has been limited to provide a daily SO₂ emission cap of 14.0 tons with associated permit changes and verification procedures to facilitate compliance verification.

Comment 3: Specific Condition No. 4

SCGC requested deletion of the specific condition No. 4 which requires installation of a flue gas oxygen monitor for control of VOC and CO emissions.

Response

BAQM feels that the variability of operation of this boiler will be such that additional monitoring is required to verify proper operation of combustion controls and that insufficient evidence was presented to support the request for deletion. The requirement was modified to allow the option of installing either an oxygen or CO₂ meter.

Page Two

Comment 4: Specific Condition No. 5

SCGC requested 120 days of off-season operation without restriction to a particular calendar period. They also requested total daily steam output during the off-season of 450,000 lb/hr.

Response

These requests have been accepted by the Bureau.

Comment 5: Specific Condition No. 6

SCGC requested use of a minimal amount of fuel oil to be burned with bagasse and residue for PM and SO₂ emission tests. They also requested use of 0.5% and 0.2% sulfur content in residue and bagasse, respectively, for SO₂ emission calculations instead of 0.4% and 0.1% sulfur content.

Response

These requests have been accepted by the Bureau.

Comment 6: Specific Condition No. 7

SCGC objected to condition 7 which restricts visible emissions from the bagasse handling system to 5% opacity, and proposed 20% opacity for visible emission control.

Response

The Bureau believes that 20% opacity is too lenient for visible emission control. However, BAQM agrees to restrict the visible emission from the handling system to 10% opacity.

Comment 7: Specific Condition No. 8

SCGC requested to measure total fuel oil consumption to Boilers 1 through 5 instead of metering the fuel oil consumption for each boiler, separately. It also requested to measure total residue consumption to all the boilers instead of measuring residue consumption for each boiler.

Response

These requests have been accepted by the Bureau.

Comment 8: Specific Condition No. 9

SCGC requested use of 0.5% and 0.2% sulfur content for residue and bagasse in the calculation of SO₂ emissions.

Response

Allowable total fuel oil consumption 61,000 gal/day was derived from 0.4% and 0.1% sulfur content of residue and bagasse. Total oil consumption should be 31,500 gal/day, if calculations are based on 0.5% and 0.2% sulfur content in residue and bagasse. The revised condition has been incorporated into specific condition No. 3.

Comment 9: Specific Condition No. 14

SCGC requested deletion of the requirement that the boiler efficiency of the new unit be determined and used to establish the heat input during the compliance test. Because the variability of bagasse and associated handling problems DER and the sugar industry has previously agreed to establish 55% as the assumed efficiency of all boilers for the purpose of carrying out heat input calculations and for compliance testing.

Response

SCGC's request has been accepted by the Bureau with the understanding that boiler efficiency determined during acceptance testing will be submitted for information.

Conclusion

These comments received from SCGC, were considered in the development of the Department's Final Determination. No other comments were received.

Final Determination

Sugar Cane Growers Cooperative of Florida

Power Boiler No. 8

Palm Beach County, Florida

Permit Numbers:

State: AC 50-42476

Federal: PSD-FL-077

Florida Department of Environmental Regulation

Bureau of Air Quality Management

Central Air Permitting

October 15, 1981

I. APPLICANT AND LOCATION

Sugar Cane Growers Cooperative of Florida
Post Office Box 666
Belle Glade, Florida 33430

The proposed modification will occur at Sugar Cane Growers Cooperative's existing plant site located about a mile east northeast of Belle Glade, Palm Beach County, Florida. The UTM coordinates are 534.9 km east and 2953.3 km north.

Final Determination
Sugar Cane Growers Cooperative of Florida
(AC 50-42476) (PSD-FL-077)

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II. PROJECT AND PROCESS DESCRIPTION

Sugar Cane Growers Cooperative of Florida (SCGC) plans to construct a new boiler (No. 8) that has a maximum capacity of 264,000 lb/hr steam produced from 504 MMBTU/hr heat input. The boiler will be capable of burning bagasse residue (residue), bagasse, and fuel oil. Fuel oil usage is limited to 250 MMBTU/hr heat input.

Currently, there are seven boilers at the existing site. The total steam generating capacity is 890,000 lb/hr while the seven boilers are operating at rated capacity. Boilers 1, 2, 4, and 5 are capable of burning residue, bagasse, and fuel oil. Boiler 3 is limited to burn bagasse and fuel oil only; Boilers 6 and 7 are exclusively fuel oil burning.

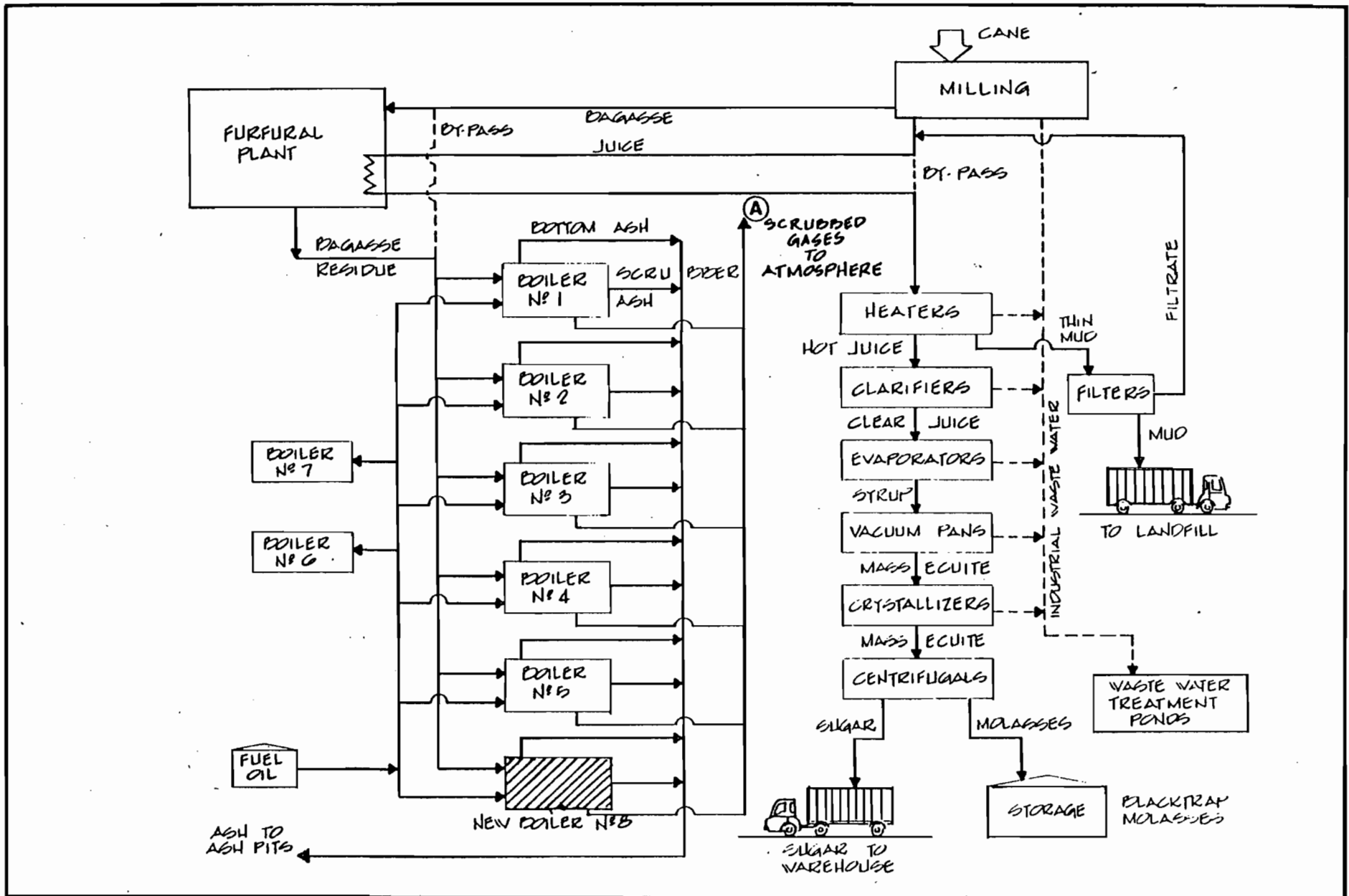
During the crop season from November through March, the projected maximum residue consumption will be 1,500 tons per day which will be distributed among Boilers 1, 2, 4, 5, and 8. Additional fuel required to meet each plant's steam demand is obtained by the use of bagasse and fuel oil. Boilers 3, 6, and 7 are also operated during the crop season. During the off-season in October, April, May, and June, some of Boilers 1, 2, 4, 5, and 8 need to be operated to provide steam to a furfural manufacturing facility. Bagasse is not available for use during this off-season operation.

While adding a new boiler at the existing site, SCGC proposes to take the following steps in order to meet ambient air quality standards.

- (1) A 155-foot-tall stack will be built for Boiler 8.
- (2) Boilers 6 and 7 each will be limited to a maximum production of 75,000 lb steam/hr instead of 125,000 lb steam/hr.
- (3) The three 85-foot stacks serving Boiler 4 will be ducted into a single stack 110 feet tall.
- (4) Permit conditions of the existing boilers will be changed to reduce maximum allowable emissions from 0.3 lb, PM/MMBTU to 0.25 lb, PM/MMBTU to reflect actual emissions.
- (5) The exit gases from Boiler 6 and 7 (currently passing through two 40-foot stacks) will be combined into a single 40-foot stack.

The increased buoyancy and plume height provided by the stack modifications will reduce ground-level concentrations.

During the crop season, harvested cane is crushed and the juice is extracted in the processing mill. Then the raw juice goes through a series of process units, which include heaters, clarifiers, evaporators, vacuum pans, crystallizers and centrifuges, to produce two products-sugar crystals and molasses. Most of the bagasse (cane after the juice is extracted) is delivered to a neighboring furfural extraction plant. The byproduct of the furfural process is residue. A process flow chart, Figure 1, is attached. It illustrates the different fuel usage for each boiler and the processes required to produce sugar and molasses from sugar cane.



SOURCE: SUGAR CANE GROWERS COOPERATIVE OF FLORIDA.

Figure 1. SUGAR PROCESS BLOCK DIAGRAM

III. EMISSIONS AND CONTROLS

The proposed boiler is capable of burning residue, bagasse, and fuel oil. The fuel usage varies depending on residue and bagasse availability. Therefore, the emission rate for each pollutant in the flue gas will be variable. For actual annual emissions calculations, the fuel usage is assumed to be 18.3 ton/hr residue, 7.5 ton/hr bagasse, and 64 gal/hr fuel oil during the crop season (184 days); 24.3 ton/hr residue and 64 gal/hr fuel oil during the off-season (120 days).

The applicant proposed to use a Joy Type D Turbulaire Scrubber as the emissions control equipment for boiler No. 8. The proposed scrubber will be operated with a pressure drop of between 5 and 9 inches H₂O.

Based on the proposed fuel usage, the actual emissions are listed in Table 1 for each boiler during both crop season and off-season operations. SO₂ emissions in Table 1 ^{were} ~~was~~ calculated based on 40% SO₂ system loss, 0.1 percent sulfur content in bagasse and 0.4 percent sulfur content in residue.

The maximum emissions of the various pollutants will not occur during the same fuel burning condition. Generally, at the same heat input level from each fuel, bagasse burning will cause higher particulate emissions than fuel oil burning. But fuel oil burning should emit more SO₂ and NO_x emissions than would be emitted from burning bagasse or residue.

FDER made a BACT determination to limit particulate matter (PM) emissions to 0.15 and 0.10 lb/MMBTU heat input while burning bagasse or residue and fuel oil respectively, and to control SO₂ emissions by limiting maximum sulfur content in fuel oil to 1.0 percent.

Maximum PM emissions from Boiler 8 will be 75.6 pounds per hour, while it is burning 100% bagasse. Maximum SO₂ emissions will be 328 lb/hr, while the boiler is burning maximum fuel oil (250 MMBTU/hr) and residue. Maximum NO_x emissions will occur when burning maximum fuel oil and bagasse; the emissions will be 123 lb/hr. Maximum CO or VOC emissions will be 140 lb/hr while burning 100% bagasse. The above maximum emissions for PM and SO₂ are based on the BACT determination.

Sugar Cane Growers Cooperative of Florida presently has only a single fuel oil storage tank and distribution system. Boilers 1 through 5 are permitted to use 2.4% sulfur fuel oil while oil-fired boilers 6 & 7 are restricted to use of 1% sulfur oil. The operating practice has been to pro-rate purchase of the oil according to the limits of the using boilers. The result has been consumption in all boilers of a blend approximating 1.8% sulfur. While this approach serves the intent of limiting total SO₂ emissions from the facility, it does not lend itself to compliance verification. Analysis of fuel consumption figures from existing boilers with the additional projected consumption of boiler #8 at 1% sulfur shows that the required blend for single tank operation will be 1.15% sulfur oil.

FDER feels that any alternative would require SCGC to install additional tankage and fuel handling equipment, an unnecessary and unproductive expense. Therefore, while analysis has been done on the basis of 1% sulfur content for the additional oil consumption, the permit limits for stack emissions have been set on the basis of 1.15% sulfur to provide a means of direct compliance verification by stack test or fuel oil analysis.

The intent is that overall compliance for the facility will require use of 1.15% sulfur oil throughout the facility. BAQM recommends that SCGC apply for modifications to existing operating permits to reflect this situation.

Table 1

Crop Season and Off-Season Emissions
(Proposed by the Applicant)

Boiler	Capacity (lb/steam/hr)	Total Btu (10 ⁶ Btu/hr)	Actual Pollutant Emissions (tons/yr)				
			PM	SO ₂	NO _x	CO	VOC
(Crop Season Emissions)							
1 and 2	240,000	414	226	424	122	190	190
3	100,000	189	103	77	72	114	114
4	240,000	414	181	424	122	190	190
5	160,000	277	151	283	81	127	127
6 and 7	150,000	194	43	896	184	15	3
8	264,000	504	324	829	209	326	325
<u>Crop Season Total</u>			<u>1,028</u>	<u>2,933</u>	<u>790</u>	<u>962</u>	<u>949</u>
(Off-Season Emissions)							
Combination of boilers 400,000 - 1,2,4,5, or 8			236	548	114	177	177
<u>Total Annual Emissions</u>			<u>1,264</u>	<u>3,481</u>	<u>904</u>	<u>1,139</u>	<u>1,126</u>

IV. RULE APPLICABILITY

A. State Rule

The proposed project is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code (FAC).

Based on the latest revised application, responses from the applicant, and the BACT determination, FDER has recalculated the emissions for each pollutant under the worst conditions. The average sulfur content 1.15% in the fuel oil has been used for calculations. Calculated emissions are listed as follows:

Pollutant	<u>Emission without Control</u>		<u>Actual Emissions</u>	
	lb/hr	ton/yr	lb/hr	ton/yr
PM	1,121	4,091	75.6	324
SO ₂	413	1,211	368	805
NO _x	123	209	123	209
CO	140	326	140	326
VOC	140	325	140	325

The proposed project location is in the Palm Beach County ozone (VOC) nonattainment area. The actual emissions of the proposed boiler, which are listed above, show that VOC emissions will be 325 ton/yr. This is greater than the 50 ton/yr cutoff level listed in Table II of 17-2.17(3), FAC. Therefore, LAER, emission offsets and statewide compliance are required pursuant to 17-2.17(5) FAC. In accordance with the LAER determination for this boiler and 17-2.17(5)(b), it is necessary to allocate 325 tons per year of VOC new source allowance from the current amount available in Palm Beach County. Recognizing the present uncertainty in VOC emission factors as discussed in the LAER determination, certain conditions will be imposed.

Since Palm Beach County's initial new source allowance through 1981 is 970 tons per year (17-2.17(7)(d)) and 93.7 ton/yr has been assigned to date, the allocation of the additional 325 tons will leave a balance of 551.3 tons which should have no foreseeable limitations on county growth in the near term before emission factors can be established and reflected in the LAER determination. At such time as emission factors are established, the anticipated balance over and above any required by 17-2.17 will revert to new source allowance and be available for future growth.

The proposed project is a major emitting facility for PM, SO₂ and CO as defined in Chapter 17-2, because PM, SO₂, and CO emissions (before control) exceed 250 tons per year. The project is subject to the provisions of Subsection 17-2.05(6) Table II, Emission Limiting Standards, and Subsection 17-2.04(6), Prevention of Significant Deterioration (PSD) which requires the use of Best Available Control Technology (BACT).

B. Federal Rule

The proposed source is subject to federal PSD review because it is a major modification. The net increases for pollutant emissions and significant emission rates are listed as follows:

<u>Pollutant</u>	<u>Actual Emission increase (T/yr)</u>	<u>Significant Emission Rate</u>
PM	324	25
SO ₂	805	40
NO _x	209	40
CO	326	100
VOC	325	40

The actual emission rate for each pollutant is greater than its significance level. Therefore, all pollutants, except VOC, are subject to federal BACT analysis under 40 CFR 52.21(j). VOC emissions which are also above the significant emission rate, are not subject to federal PSD review or a BACT analysis because the proposed site is in the ozone nonattainment area. VOC emissions are only subject to review under the State's nonattainment rule 17-2.17.

V. CONTROL TECHNOLOGY REVIEW

The BACT and LAER determinations proposed by the Department are attached. A discussion of these determinations follows.

A. Particulate Matter (PM)

The applicant has proposed use of an impingement scrubber with better than 90 percent efficiency and an emission rate of 0.20 lb PM/MMBTU heat input as BACT. This type scrubber has been standard in the sugar cane industry in Florida. FDER believes better control systems, such as multicyclone plus scrubber or bag filters, are available for control of particulate matter emissions from bagasse/residue boilers. Cost and maintenance of these alternatives would be higher than the impingement scrubber proposed and, at the present time, it is not clear whether sufficient improvement in performance would be gained to offset the additional cost. FDER believes that a well designed impingement scrubber and related control system, with adequate pressure drop across the scrubber and optimum amount of make up water to the scrubber, can reduce the PM emission rate to less than 0.15 lb/MMBTU heat input when the boiler is burning bagasse/residue.

B. Sulfur Dioxide (SO₂)

Sulfur dioxide is created in the boiler when sulfur containing fuels are burned. The sulfur content of bagasse is reported to vary from 0.1 to 0.2 percent on a dry basis; the sulfur content of residue varies from 0.4 to 0.5 percent. No feasible method exists to reduce the sulfur content in bagasse or in residue. Sulfur content in fuel oil varies. The applicant has proposed and FDER has accepted the use of fuel oil with a maximum of 1.0% sulfur content as BACT to control sulfur dioxide emissions for this boiler.

SO₂ emissions could be reduced by installation of a flue gas desulfurization (FGD) system. However, FDER does not believe a FGD system is justified for this seasonal industry. Use of low sulfur fuel oil as BACT is more cost effective.

C. Nitrogen Oxide (NO_x), Ozone (VOC) and Carbon Monoxide (CO)

The operating practice for the proposed boiler requires the use of 40 percent excess air to burn bagasse or residue. High excess air for combustion encourages the formation of NO_x but reduces the emissions of VOC and CO. As the plant site is classified nonattainment for ozone, FDER believes good boiler operation practice should minimize VOC emissions. To limit the NO_x and VOC emissions as required by BACT and LAER, the applicant shall install an oxygen or carbon dioxide monitor in the boiler's duct, calibrate it and set alarms in it as described in the attached article entitled "Use of Flue Gas Oxygen Meter as BACT for Combustion Controls".

D. Maximum Allowable Emissions

Allowable emissions are based on worst case emissions from the fuel mix scenarios described in Section III. Because of this, it is not expected that the maximums allowed will occur simultaneously. The following table summarizes the maximum allowable emissions of each pollutant.

<u>Pollutant</u>	<u>Maximum Allowable Emissions</u>	
	<u>lb/hr</u>	<u>ton/yr</u>
PM	75.6	324
SO ₂	368*	805
NO _x	123	209
CO	140	326
VOC	140	325

*Based on S. 1.15%.

Opacity: 30% except for 40% no more than 2 minutes per hour

VI. AIR QUALITY IMPACT ANALYSIS

A. Summary

The State PSD review for PM and SO₂ requires an air quality impact analysis which includes a PSD increment analysis. The State PSD and FAAQS analyses depend on air quality modeling carried out in accordance with FDER-approved methods.

The air quality impact analysis required under federal PSD review for PM, SO₂, CO, and NO_x includes:

- o An analysis of existing air quality;
- o A PSD increment analysis (for PM and SO₂ only);
- o A National Ambient Air Quality Standards (NAAQS) analysis; and
- o An analysis of impact on soils, vegetation and visibility and growth-related air quality impacts.

The analysis of existing air quality may require preconstruction monitoring; the PSD and NAAQS analyses depend on air quality modeling carried out in accordance with EPA-approved methods. Federal PSD review also requires a good engineering practice (GEP) stack height evaluation.

Based on these required State and federal air quality impact analyses, FDER has reasonable assurance that the SCGC modification, as described in this permit and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any State or federal PSD increment or ambient air quality standard. A discussion of the required analyses follows.

B. Discussion

1. Modeling Methodology

The Industrial Source Complex (ISC) model, an FDER and EPA-approved dispersion model, was used in the State and federal air quality impact analyses. This model was used to determine the maximum predicted annual concentrations and to identify the absolute worst-case short-term meteorological conditions which would affect emissions from SCGC after the proposed modification is completed. It was also used to identify days on which meteorological conditions produced worst-case short-term SCGC impacts in the vicinity of the mill with interacting sources located directly upwind.

The maximum short-term impacts were refined using the ISC model with a 0.1 to 0.2 kilometer spacing between receptors and only the days on which worst-case meteorological conditions occurred. Emissions from interacting sources were included in these runs.

The maximum predicted annual concentrations are based upon maximum predicted 184-day (crop season) average concentrations. During the off-season, the plant is operating at less than half capacity or is inoperative. Thus, the true maximum annual average will be some fraction of these modeled 184-day averages.

SCGC's consultant used ISC to evaluate PM and SO₂ air quality impacts. FDER used the results of the consultant's modeling for PM and SO₂ impacts to derive approximate NO_x and CO impacts.

Worst-case impacts for each pollutant subject to analysis occur under different fuel burning conditions. The worst-case PM and CO impacts occur when total plant steam production is from non-fossil fuel combustion. The worst-case SO₂ impacts occur when the maximum amounts of residue and oil are burned, while the worst-case NO_x impacts occur when the maximum amounts of bagasse and oil are burned. Permit conditions will limit the total amount of plant-wide fuel oil consumption during any 24-hour period. Modeling and analysis for each of these pollutants was performed using the appropriate worst-case fuel mix.

The surface meteorological data used in the models were National Weather Service data collected at West Palm Beach, Florida during the period 1970-1974. Upper air meteorological data used in the models were collected during the same time period at Miami, Florida.

Final stack parameters and emission rates used in modeling and analyzing the proposed SCGC modification are contained in Tables 2 and 3.

2. Analysis of Existing Air Quality

In order to evaluate existing air quality in the area of a proposed project, FDER may require a period of continuous preconstruction monitoring for any pollutant subject to federal PSD review.

For this project, FDER required the submittal of preconstruction monitoring data for total suspended particulate matter (TSP). Three years of data collected from Palm Beach County Health Department TSP monitors PB-16 and PB-19 were used.

Table 2

Stack Parameters for Sugar Cane Growers Coop Mill - Baseline Case

<u>Emissions Unit</u>	<u>Stack Height (m)</u>	<u>Stack Diameter (m)</u>	<u>Exit Velocity (m/s)</u>	<u>Exit Temperature (K)</u>	<u>Emission Rate (g/sec)</u>	
					<u>SO₂</u>	<u>PM</u>
Boiler # 1 & 2	24.4	1.40	11.40	344.0	24.20	13.60
Boiler #3	24.4	1.60	15.60	344.0	4.40	5.70
Boiler #4	25.9	1.63	11.20	344.0	24.20	10.90
Boiler #5	24.4	1.40	15.20	344.0	16.20	9.10
Boiler #6 & 7	12.2	1.52	11.20	606.0	51.00	2.50

Table 3

Stack Parameters for Sugar Cane Growers Coop Mill - Projected Case

<u>Emissions Unit</u>	<u>Stack Height (m)</u>	<u>Stack Diameter (m)</u>	<u>Exit Velocity (m/s)</u>	<u>Exit Temperature (K)</u>	<u>Emission Rate (g/sec)</u>			
					<u>SO₂</u>	<u>PM</u>	<u>NO_x</u>	<u>CO</u>
Boiler #1 and 2	24.4	1.40	11.40	344.0	24.20	13.60	6.96	14.84
Boiler #3	24.4	1.60	15.60	344.0	4.40	5.70	4.11	6.78
Boiler #4	33.5	2.82	11.20	344.0	24.20	10.90	6.96	14.84
Boiler #5	24.4	1.40	15.20	344.0	16.20	9.10	4.62	9.90
Boiler #6 and 7	12.2	2.13	11.20	606.0	51.00	2.50	10.50	.86
Boiler #8	47.2	3.05	10.60	344.0	26.70	12.00	11.93	18.60

TSP monitor PB-16 is located 28 kilometers to the east of the SCGC mill, and monitor PB-19 is located 5 kilometers to the southwest of the mill. Data from these monitors meet all FDER and EPA quality assurance requirements. Data from both of these monitors were used in order to more accurately reflect the impact of cane field burning on air quality in the vicinity of SCGC. FDER has assumed that the average of the annual geometric means from the two monitors best represents the existing air quality or background value for the annual averaging time. This value is 43 ug/m^3 . However, no adequate means of subtracting SCGC's existing 24-hour TSP impacts on the measured concentrations from PB-19, the monitor closest to SCGC, exists. Therefore, instead of assigning a value to represent the 24-hour TSP background, FDER has accepted a statistical analysis by SCGC's consultant which demonstrates that the probability is reasonably low that the combined impacts of modeled PM emissions from the SCGC mill and the existing air quality as measured at PB-16 and PB-19 will result in a violation of any FAAQS or NAAQS.

There are no FDER or EPA approved SO_2 , CO and NO_2 monitors within 15 miles of the SCGC mill. Since this mill is located in a remote area with respect to emissions of these pollutants from other sources, background values of 0 ug/m^3 for CO and 20 ug/m^3 for NO_2 were assumed by FDER in lieu of requiring pre-construction monitoring. FDER assumed a background value of 0 ug/m^3 for SO_2 since all sources of SO_2 which would interact with emissions from the SCGC mill are accounted for in the modeling. These background values are also used for all averaging times and are consistent with EPA monitoring guide-

lines applicable to projects submitting complete applications prior to June 8, 1981.

3. PSD Increment Analysis

Both the State and federal PSD increment analyses pertain to TSP and SO₂ only. The proposed SCGC modification is located in an area where the Class II increments apply. The nearest Class I area is Everglades National Park which is greater than 100 kilometers away from the mill.

The stack modifications proposed as a condition of this permit will improve dispersion and provide a net air quality improvement at all points surrounding the SCGC mill. Therefore, no State or federal TSP or SO₂ increment will be consumed in any Class I or II area as a result of the proposed modification.

4. Ambient Air Quality Standards Analysis

Both State and federal PSD regulations require the permit applicant to demonstrate that, given existing air quality in an area, a proposed emissions increase subject to PSD review will not cause or contribute to any violation of ambient air quality standards. For the proposed project at SCGC, an ambient air quality standards analysis is required for PM, SO₂, CO and NO_x.

As shown in the following table, modeling results predict that maximum ground-level concentrations for each of these pollutants will be below both the FAAQS and NAAQS. The highest, second highest short-term predicted values are given in this table since five years of meteorological data were used in the modeling.

<u>Pollutant</u>	<u>Averaging Time</u>	<u>Projected Air Quality* (ug/m³)</u>	<u>NAAQS (ug/m³)</u>	<u>FAAQs (ug/m³)</u>
SO ₂	annual	25	80	60
	24-hour	229	365	260
	3-hour	1189	1300	1300
TSP	annual	56	75	60
	24-hour	< 150	150	150
NO ₂	annual	29	100	100
CO	8-hour	< 500	10,000	10,000
	1-hour	< 1000	40,000	40,000

*Includes background concentration of 43 ug/m³ for annual TSP and 20 ug/m³ for NO₂; background value for 24-hour TSP not assigned but included in statistical analysis.

Modeling was also performed to evaluate the impacts of interactions of emissions from other sources with those from the SCGC plant. Maximum contributions from surrounding sources are very small compared to maximum ground-level concentrations from the SCGC plant. If these concentrations are added to the values in the table, no violations are predicted to occur.

5. Analysis of Impact on Soils, Vegetation and Visibility and Growth-Related Air Quality Impacts

The maximum impact of the proposed modification, as demonstrated through the air quality analysis, will be below the national secondary air quality standards for PM and SO₂. These standards were established to protect public welfare related values. Also, the maximum impact of the proposed modification on NO₂ and CO concentrations will be insignificant. Therefore, no adverse effects on soils, vegetation and visibility is expected.

There will be no increase in the number of employees at this site due to the project. Therefore, no secondary residential, commercial or industrial growth which will adversely effect air quality in the area is expected.

6. Good Engineering Practice Stack Height Evaluation

The stack height (155 feet) proposed for boiler No. 8 is less than the good engineering practice stack height of 255 feet, but it is greater than 1.5 times the building height of the tallest building of influence. The proposed stack height will be sufficient to ensure that PM, SO₂ and CO emissions from this stack will not result in excessive ground-level concentrations as a result of aerodynamic effects of nearby structures.

VII. CONCLUSIONS

FDER proposes a final determination of approval with conditions for the construction of the proposed boiler by SCGC. The determination is made on the basis of information contained in the application and in the additional information dated April 24, May 29, June 25, July 6, July 9, July 15, July 22, and August 18, 1981, supplied by the applicant.

The general and specific conditions are listed in the attached state permit (AC 50-42476) and federal permit (PSD-FL-077).

VIII. ATTACHMENTS

1. State Permit.
2. Federal Permit.
3. BACT and LAER Determination.
4. Application to Construct Air Pollution Sources, DER Form 17-1.122(16), received on April 24, 1981.
5. DER's incompleteness letter to SCGC dated May 21, 1981.
6. SCGC's response to DER, dated May 29, 1981.
7. DER's second incompleteness letter to SCGC, dated June 25, 1981.
8. ESE's response to DER about background determination, dated July 6, 1981.
9. SCGC's response to DER, dated July 9, 1981.
10. ESE's response to DER about additional background analysis, dated July 22, 1981.
11. ESE's response to DER about oil burning scenarios, dated August 18, 1981.

Final Determination

Sugar Cane Growers Cooperative of Florida

Application PSD-FL-077

The preceding Final Determination is adopted by reference for the Federal Permit, PSD-FL-077.

Special Conditions listed in the State Permit, AC 50-42476, are adopted as special conditions for the Federal Permit, PSD-FL-077, for this source.

The attached General Conditions are also made a part of the Federal Permit PSD-FL-077 for this source.

Attachment: General Conditions (Federal)

GENERAL CONDITIONS

1. The permittee shall notify the permitting authority in writing of the beginning of construction of the permitted source within 30 days of such action and the estimated date of start-up of operation.
2. The permittee shall notify the permitting authority in writing of the actual start-up of the permitted source within 30 days of such action and the estimated date of demonstration of compliance as required in the specific conditions.
3. Each emission point for which an emission test method is established in this permit shall be tested in order to determine compliance with the emission limitations contained herein within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source. The permittee shall notify the permitting authority of the scheduled date of compliance testing at least thirty (30) days in advance of such test. Compliance test results shall be submitted to the permitting authority within forty-five (45) days after the complete testing. The permittee shall provide (1) sampling ports adequate for test methods applicable to such facility, (2) safe sampling platforms, (3) safe access to sampling platforms, and (4) utilities for sampling and testing equipment.
4. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of two (2) years from the date of recording.
5. If, for any reason, the permittee does not comply with or will not be able to comply with the emission limitations specified in this permit, the permittee shall provide the permitting authority with the following information in writing within five (5) days of such conditions:
 - (a) description of noncomplying emission(s),
 - (b) cause of noncompliance,
 - (c) anticipated time the noncompliance is expected to continue or, if corrected, the duration of the period of noncompliance,
 - (d) steps taken by the permittee to reduce and eliminate the noncomplying emission,and
 - (e) steps taken by the permittee to prevent recurrence of the noncomplying emission.

Failure to provide the above information when appropriate shall constitute a violation of the terms and conditions of this permit. Submittal of this report does not constitute a waiver of the emission limitations contained within this permit.

6. Any change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that will result in new or increased emissions must be reported to the permitting authority. If appropriate, modifications to the permit may then be made by the permitting authority to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause violation of the emission limitations specified herein.
7. In the event of any change in control or ownership of the source described in the permit, the permittee shall notify the succeeding owner of the existence of this permit by letter and forward a copy of such letter to the permitting authority.
8. The permittee shall allow representatives of the State environmental control agency or representatives of the Environmental Protection Agency, upon the presentation of credentials:
 - (a) to enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of the permit;
 - (b) to have access to any copy at reasonable times any records required to be kept under the terms and conditions of this permit, or the Act;
 - (c) to inspect at reasonable times any monitoring equipment or monitoring method required in this permit;
 - (d) to sample at reasonable times any emission of pollutants;and
 - (e) to perform at reasonable times an operation and maintenance inspection of the permitted source.
9. All correspondence required to be submitted by this permit to the permitting agency shall be mailed to:

Chief, Air Facilities Branch
Air and Hazardous Materials Division
U. S. Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30308

10. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

The emission of any pollutant more frequently or at a level in excess of that authorized by this permit constitute a violation of the terms and conditions of this permit.



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICANT: Sugar Cane Growers Cooperative of
Florida (SCGC)
P. O. Box 666
Belle Glade, Florida 33430

PERMIT/CERTIFICATION
NO. AC 50-42476

COUNTY: Palm Beach

PROJECT: Boiler No. 8

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:

For the construction of a 264,000 pounds of steam per hour bagasse/residue fuel (No. 6 oil supplementary fuel) fired boiler equipped with an impingement scrubber to be located at SCGC's existing plant that is approximately a mile east northeast of Belle Glade, Palm Beach County, Florida. The UTM coordinates of the proposed plant are 2,953.3 km north and 534.9 km east.

Construction shall be in accordance with the attached permit application plans, documents and drawings except as otherwise noted on pages 3, 4, and 5, Specific Conditions.

Attachments:

1. Application to Construct Air Pollution Sources, DER Form 17-1.122(16), received on April 24, 1981.
2. DER's incompleteness letter to SCGC, dated May 21, 1981.
3. SCGC's response to DER, dated May 29, 1981.
4. DER's second incompleteness letter to SCGC, dated June 25, 1981.
5. SCGC's response to DER, dated July 9, 1981.
6. ESE's response to DER, dated July 15, 1981.
7. BACT and LAER determinations, dated August 6 and 10, 1981.

PERMIT NO.: AC 50-42476

APPLICANT: Sugar Cane Growers Cooperative of Florida

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.: AC 50-42476

APPLICANT: Sugar Cane Growers Cooperative of Florida

SPECIFIC CONDITIONS:

1. The proposed boiler shall be constructed in accordance with the capacities and specifications stated in the application and additional information supplied by the applicant.
2. The proposed boiler's maximum emission rates shall not exceed the emission limits listed below.

Maximum Allowable Emissions

<u>Pollutant</u>	<u>lb/hr</u>	<u>ton/day</u>	<u>ton/yr</u>
PM	75.6 (95.0)*		243 ²⁷⁶ (324)*
SO ₂		14.0 ⁺	
CO ₂	140		325 511
VOC	140		325 511
NO _x	123		209 449

Visible emissions: 30% opacity except for 40% no more than two minutes per hour.

* The air quality impact analysis was conducted on the basis of the emissions contained in parentheses. The numbers not contained in parantheses are based upon the BACT determination. The BACT determination gives the permittee the right to seek revision if the 0.15 lb/10⁶ Btu input limit cannot be met on a continuous basis. However, any revision of the BACT emission cannot exceed the 0.20 lb/10⁶ Btu input Florida new source limit, nor will the allowable lb/hr and ton/yr emissions be allowed to exceed the numbers contained in parentheses.

+ SO₂ emissions for all boilers from Unit 1 through 8.

3. SCGC shall meter daily oil consumption by Units 6 and 7, and unit 8, individually. The total quantity of fuel oil consumed on a daily basis by Units 6,7, and 8 shall be replaced by the addition to the system of an equal or greater amount of 1% or less sulfur fuel oil within 72 hours (excluding weekends). Records shall be retained for two years. The balance of the oil in the system should not exceed 2.4% sulfur. For the purpose of simplicity, compliance with the 14 ton per day plant wide SO₂ emission limit shall be presumed based upon the fuel purchase scheme above when the total plant wide fuel oil consumption does not exceed 31,500** gallons. In the event that the daily consumption of oil exceeds 31,500** gallons, permittee must demonstrate compliance with the 14 ton per day limit by providing the amounts of bagasse, residue, and oil combusted, and the sulfur content of the oil for each such day. The demonstration of compliance shall be based on the same assumptions used to derive the threshold oil consumption figure except that the actual sulfur

PERMIT NO.: AC 50-42476

APPLICANT: Sugar Cane Growers Cooperative of Florida

content of the oil for each such day shall be substituted for 1.15%.

** This threshold oil consumption figure is based upon the assumptions that the bagasse, residue and oil sulfur contents are 0.2%, 0.5% and 1.15%, respectively, and also that SO₂ emissions from bagasse and residue are 40% below the amounts calculated stoichiometrically and all sulfur in fuel oil is emitted as SO₂. If further tests show that the foregoing assumptions are significantly incorrect, the 31,500 gallons per day figure shall be adjusted accordingly.

4. Emissions of VOC and CO shall be maintained at the lowest possible level through good combustion control. A flue gas oxygen or CO₂ monitor shall be installed.
5. From 16 April through 12 October plant operation shall be restricted to no more than three boilers of unit numbers 1, 2, 4, 5, or 8, and to no more than 120 days. During this period of restricted operation, steam production shall not exceed a maximum daily average of 450,000 lb/hr.
6. Compliance with the emission limits required in condition No. 2 shall be determined by performance tests. Particulate matter emissions tests shall be made while burning bagasse with the minimal amount of oil necessary to reach test capacity. The two SO₂ emission tests shall be made while burning bagasse only and residue only with the minimal amounts of fuel oil necessary to reach test capacity. These tests are to determine compliance with the SO₂ emission limits of 299 lb/hr from non-fossil fuel while burning residue, and 152 lb/hr from non-fossil fuel while burning bagasse. EPA reference method 25 shall be used to establish VOC emissions during compliance tests. The boiler shall be at or near to full operating capacity during all performance tests. The performance tests shall be conducted in accordance with EPA reference methods (40 CFR 60, Appendix A) and the provisions of 40 CFR 60.8 and 40 CFR 60.46.
7. Visible emissions from the bagasse handling system shall not exceed 10 percent opacity over any 6 minute period as measured by EPA reference method 9.
8. Instruments shall be installed to continuously measure the amount of fuel oil used individually by the proposed boiler 8 and boilers 6 and 7, the total amount of fuel oil used by boilers 1 through 5, and the

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APPLICANT: Sugar Cane Growers Cooperative of Florida

SPECIFIC CONDITIONS:

total amount of residue used in all boilers. Bagasse consumption shall be calculated from steam consumption. The records of fuel oil, residue and bagasse usage will be kept by the company, available for regulatory agency inspection, for two years.

9. The scrubber shall be equipped with a manometer or equivalent instrument to measure the total pressure drop of the flue gas stream across the scrubber, with pressure gauges to measure the water pressure at the spray nozzles, with a flow meter or equivalent device (weir) to measure the quantity of water circulating through the scrubber. The pH of scrubber water at the scrubber inlet and outlet shall be measured. Data from these instruments shall be recorded each shift (every 8 hours) and available for regulatory agencies inspection for two years.
10. The stack sampling configuration of the proposed boiler shall comply with the minimum of 2D downstream and 0.5D upstream distances to the sampling ports required to use reference method 2.
11. The quantity of ^{511, 157}~~325~~ tons per year of VOC emissions is hereby assigned to the boiler from the new source allowance balance for Palm Beach County pursuant to 17-2.17(7)(a) and (d). At such time as the LAER determination for this boiler is revised, based on data acquired under Specific Condition #6, any VOC emission allowance not required shall revert to Palm Beach County available new source allowance.
12. Before the Operation Permit is issued, SCGC shall finish the stack modifications and revise the operation permits of existing boilers based on the following commitments.
 - (a) A 155-foot tall stack will be built for Boiler 8.
 - (b) The three 85-foot stacks serving Boiler 4 will be ducted into a single stack 110 feet tall.
 - (c) The exit gases from Boiler 6 and 7 (Currently passing through two 40-foot stacks) will be combined into a single 40-foot stack.
 - (d) Boilers 6 and 7 each will be limited to a maximum production of 75,000 pounds of steam per hour instead of 125,000 pounds of steam per hour.
 - (e) Permit conditions of the existing boilers will be changed to reduce allowable particulate matter emissions from 0.3 pound per million BTU to 0.25 pound per million BTU.

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APPLICANT: Sugar Cane Growers Cooperative of Florida

(f) Based on Specific Condition Number 3, operating permits for existing boilers from units 1 through 7 shall be revised to reflect the way fuel oils should be blended in the oil storage tank.

13. The maximum fuel oil consumption of the proposed boiler is limited to the quantity equivalent to 250 MMBTU/hr (1,667 gallons per hour, if the heating value of the fuel oil is 18,500 BTU per pound).

Expiration Date: May 31, 1983

Issued this _____ day of _____, 19_____

_____ Pages Attached.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Signature

PAGE 6 OF 6

WAIVER OF 90 DAY TIME LIMIT
UNDER SECTION 120.60(2), FLORIDA STATUTES

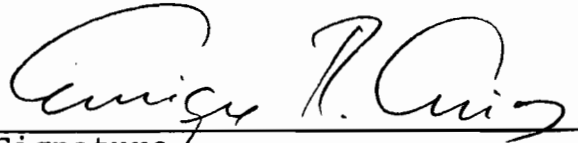
License (Permit, Certification) Application No. AC 50-42476
Applicant's Name: SUGAR CANE GROWERS COOPERATIVE OF FLORIDA

The undersigned has read Section 120.60(2), Florida Statutes, and fully understands the Applicant's rights under that section.

With regard to the above referenced license (permit, certification) application, the Applicant hereby with full knowledge and understanding of (his) (her) (its) rights under Section 120.60(2), Florida Statutes, waives the right under Section 120.60(2), Florida Statutes, to have the application approved or denied by the State of Florida Department of Environmental Regulation within the 90 day time period prescribed in Section 120.60(2), Florida Statutes. Said waiver is made freely and voluntarily by the Applicant, is in (his) (her) (its) self-interest, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Regulation.

This waiver shall expire on the 28 day of OCTOBER 19 81.

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



Signature

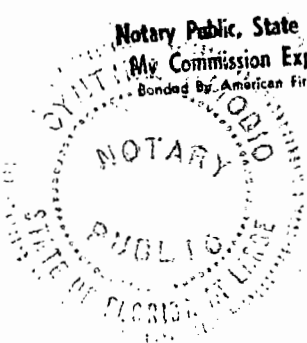
ENRIQUE R. ARIAS

Name of Signee

Sworn to and subscribed
before me this 16th day
of October 19 81.

10/16/81
Date

Notary Public, State of Florida at Large
My Commission Expires Oct. 3, 1981
Bonded By American Fire & Casualty Company.



Section 120.60, Florida Statutes

(2) When an application for a license is made as required by law, the agency shall conduct the proceedings required with reasonable dispatch and with due regard to the rights and privileges of all affected parties or aggrieved persons. Within 30 days after receipt of an application for a license, the agency shall examine the application, notify the applicant of any apparent errors or omissions, and request any additional information the agency is permitted by law to require. Failure to correct an error or omission or to supply additional information shall not be grounds for denial of the license unless the agency timely notified the applicant within this 30 day period. The agency shall notify the applicant if the activity for which he seeks a license is exempt from the licensing requirement and return any tendered application fee within 30 days after receipt of the original application or within 10 days after receipt of the timely requested additional information or correction of errors or omissions. Every application for license shall be approved or denied within 90 days after receipt of the original application or receipt of the timely requested additional information or correction of errors or omissions. Any application for a license not approved or denied within the 90-day period or within 15 days after conclusion of a public hearing held on the application, whichever is latest, shall be deemed approved and, subject to the satisfactory completion of an examination, if required as a prerequisite to licensure, ²(the license) shall be issued. The Public Service Commission, when issuing a license, and any other agency, if specifically exempted by law, shall be exempt from the time limitations within this subsection. Each agency, upon issuing or denying a license, shall state with particularity the grounds or basis for the issuance or denial of same, except where issuance is a ministerial act. On denial of a license application on which there has been no hearing, the denying agency shall inform the applicant of any right to a hearing pursuant to s. 120.57.