



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

June 10, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Hector Cardentey  
Atlantic Sugar Association  
P.O. Box 1570  
Belle Glade, FL 33430

Re: Atlantic Sugar Association Boiler No. 5  
Request to Increase Hours of Operation from 3000 to 3600

Dear Mr. Cardentey:

The Department's position has not changed as of our letter dated May 6, 1999 nor conversations held on June 7, 1999. Increasing the hours of operation for this boiler from the current annual limit of 3000 back to the original PSD limit of 3528 requires PSD applicability review. If the difference between future potential emissions and past actual emissions exceeds any of the significant emissions rates defined in Rule 212.400, F.A.C., the request would be considered a major modification requiring a PSD permit application including an air quality impact analysis and BACT determination.

In your May 21<sup>st</sup> letter, you indicated that the Department's February 4, 1986 Technical Evaluation and Preliminary Determination (TEPD) for permit number AC50-107181 states the following: "... *The proposed project, a minor modification, to a major source is not subject to review under federal regulations because the modification does not result in a significant emission increase of any criteria pollutant. ...*" However, the reason that the project was considered a "minor modification" is because the complete project included the following requests:

- Increase maximum hourly steam production from 100,000 to 130,000 pounds per hour,
- Cap daily average steam production to 115,000 pounds per hour, and
- Decrease annual hours of operation from 3528 to 3000

The corresponding decrease in hours of operation allowed this facility to "net out" of PSD. This is clearly shown in Table I of the TEPD.

Also included in your letter was a copy of EPA's November 17, 1986 modification to PSD permit number PSD-FL-078 that states: "... *Specific condition No. 5 is hereby revised as to limit boiler operating time from 3528 hours to 3000 hours per year during the crop season from October to April. ...*" The Department believes this action was taken so that the netting opportunity used by the applicant would be included in the federally enforceable PSD permit. This makes it clear that increasing the annual hours of operation above 3000 could result in a major modification. If the Department ignored this action, it would circumvent the previous netting determination that allowed Atlantic Sugar to avoid PSD review in 1986.

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

June 9, 1999, David Buff  
Atlantic Sugar Boiler No. 5  
Request to Increase Annual Hours  
Page 2

Furthermore, Rule 62-212.400(2)(g), F.A.C. specifically states: "... Relaxations of Restrictions on Pollutant Emitting Capacity. If a previously permitted facility or modification becomes a facility or modification which would be subject to the preconstruction review requirements of this rule if it were a proposed new facility or modification solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility or modification to emit a pollutant (such as a restriction on hours of operation), which limitation was established after August 7, 1980, then at the time of such relaxation the preconstruction review requirements of this rule shall apply to the facility or modification as though construction had not yet commenced on it."

If you have any questions or additional information you would like to have considered, please contact Jeff Koerner, P.E., New Source Review Section, at the above letterhead address or at 850/414-7268.

Sincerely,



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

CHF/jfk

Enclosures

TEPD issued February 4, 1986  
EPA Letter Modification dated November 17, 1986

cc:

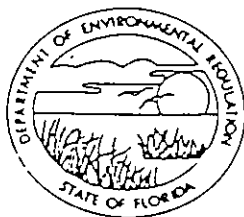
Mr. David Buff, P.E., Golder Associates Inc.  
Phil Barbaccia, South District - DEP  
Jim Stormer, Palm Beach County Health Department

RECEIVED FEB 13 1986

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

February 4, 1986

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Jose F. Alvarez  
General Manager  
Atlantic Sugar Association  
Post Office Drawer B  
Belle Glade, Florida 33430

Dear Mr. Alvarez:

Attached is one copy of the Technical Evaluation and Preliminary Determination, and proposed permit that will authorize an increase in steam production of the No. 5 bagasse-fired boiler.

Before final action can be taken on your permit, you are required by Florida Administrative Code Rule 17-103.150 to publish the attached Notice of Proposed Agency Action in the legal advertising section of a newspaper of general circulation in Palm Beach County no later than fourteen days after receipt of this letter. The DER Bureau of Air Quality Management must be provided with proof of publication within seven days of the date the notice is published. Failure to publish the notice may be grounds for denial of the permit.

The Bureau has been notified that violation of the air pollution control regulations exist at this plant. The department cannot issue a permit to increase the steam production of the boiler if it or any associated equipment is in violation of the regulations. Please be advised that the issuance of a construction permit is contingent on your company correcting any violations and settling any enforcement action associated with this boiler and its accessory equipment.

State of Florida  
Department of Environmental Regulation  
Notice of Proposed Agency Action  
on Permit Application

The Department of Environmental Regulation gives notice of its intent to issue a permit to Atlantic Sugar Association that will authorize an increase in steam production of their No. 5 boiler. This boiler is located at the company's sugar mill that is 4 miles south of Belle Glade, Palm Beach County, on State Road 80.

Permitted steam production in this bagasse-fired boiler will increase from 100,000 to 130,000 lb/hr. Allowable operation time for the boiler will be reduced to 3,000 hours per season. Emissions from the boiler will increase by the following amounts.

<u>Pollutant</u>	<u>Particulate Matter</u>	<u>Sulfur Dioxide</u>	<u>Carbon Monoxide</u>	<u>Hydro- carbons</u>	<u>Nitrogen Oxides</u>
Change (TPY)	-1.1	-43.7	-3.2	-55.7	+5.4

The change in emissions from this boiler will not cause a significant increase in the ambient air concentration at ground level of any of these criteria pollutants. The boiler will remain subject to the best available control technology determination that was issued for it when it was originally installed at this mill.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period constitutes a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

Technical Evaluation  
and  
Preliminary Determination

Atlantic Sugar Association  
Belle Glade, Florida  
Palm Beach County

No. 5 Bagasse-Fired Boiler Modification  
File No. AC 50-107181

Florida Department of Environmental Regulation  
Bureau of Air Quality Management  
Central Air Permitting

February 5, 1986

Table I

Pollutant	Present Production (a)		Proposed Production (b)		Change	
	max. lb/hr	TPY(g)	max. lb/hr(c)	TPY(d)	lb/hr	TPY
Particulate Matter (e)	29.2	51.4	37.9	50.3	+8.7	-1.1
Sulfur Dioxide(f)	106.1	167.8	93.6	124.1	-12.5	-43.7
Carbon Monoxide(e)	53.1	93.7	68.2	90.5	+15.1	-3.2
Hydrocarbon(e)	53.1	93.7	25.3(h)	38.0	-27.8	-55.7
Nitrogen Oxides(f)	36.5	56.3	46.5	61.7	+10.0	+5.4

(a) 3,528 hr/season maximum allowed operation

(b) 3,000 hr/season maximum allowed operation

(c) 130,000 lb/hr maximum hourly steam production allowed

(d) 115,000 lb/hr maximum daily average steam produced allowed

(e) Boiler using 100 percent bagasse fuel

(f) Boiler using bagasse with No. 6 oil as supplementary fuel

(g) From the Public Notice for Construction Permit

No. AC 50-42389

(h) Allowable hydrocarbon emissions are reduced to the potential emissions as specified in Specific Condition No. 13 of Construction Permit No. AC 50-42389

## II. RULE APPLICABILITY

### A. State Regulations

The proposed project, increasing the steam production from an existing carbonaceous fuel fired boiler (No. 6 oil supplementary fuel) located at a sugar mill, is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code.

The affected boiler is located in an area designated nonattainment for ozone (Rule 17-2.410, FAC), and attainment for the other criteria pollutants (17-2.420).

Sugar mills, which are chemical process plants, are listed in Table 500-2, Major Facility Categories (list of 28). The sugar mill is a major facility (17-2.100) because the emissions of particulate matter (PM), sulfur dioxide (SO<sub>2</sub>) carbon monoxide (CO), volatile organic compounds (VOC), and nitric oxides (NO<sub>x</sub>) exceed 100 TPY for each of these criteria pollutants. However, the increase in emissions resulting from the proposed project are less than the significant emission rates listed in Table 500-2, Regulated Air Pollutants-Significant Emission Rates.

The project is not subject to the prevention of significant deterioration regulations (17-2.500) and new source review for nonattainment areas (17-2.510) because the modification does not result in a significant emission increase of any criteria pollutant (17-2.500(2)(d)4.a(ii) and 17-2.510(2)(d)4.a.).

The project will be reviewed under Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements. Allowable emissions will be based on the best available control technology (BACT) determination issued for this source when it was originally constructed by the applicant and the emissions currently being proposed by the applicant. Higher emissions could subject this modification to review under other regulations.

### B. Federal Regulations

The proposed project, a minor modification to a major source, is not subject to review under federal regulations because the modification will not result in a significant net emissions increase of any criteria pollutant. The permit the state proposes to issue in response to the applicant's request will succeed the federal permit (PSD-FL-078) that was originally issued to Atlantic Sugar Association for this boiler although any condition in the federal permit that is not modified by the state permit will remain in effect and be enforceable by the regulatory agencies.

### III. Technical Evaluation

The emission standards in the initial permit to construct (AC 50-42389) that was issued for the No. 5 boiler and Joy Turbulaire impingement type scrubber were based on BACT and LAER determinations. A BACT determination addressed all criteria pollutants except VOC. The VOC standard was established by a LAER determination. A reliable VOC emission factor for bagasse boilers was not available when the initial application to construct this boiler was processed. Based on the estimated emissions in the original application, it was necessary to assign 93.7 TPY new source allowance for VOC to this source. The department believed the VOC emission factor used by the applicant was high and, as a condition of the original construction permit (Specific Condition No. 13 of permit No. AC 50-42389), required any excess VOC new source allowance be returned to Palm Beach County. Actual test data on this boiler shows it will emit less than the significant emission rate of 40 TPY VOC after the modification. Under current state regulations, all 93.7 TPY of VOC from the new source allowance initially assigned to this boiler is returned to the new source allowance for Palm Beach County. If the VOC emissions from this boiler exceeds 40 TPY in the future, a new allowable VOC emission standard, based on a revised LAER determination, will be assigned to this boiler.

The maximum allowable emission rates from Specific Condition No. 2 of the original state construction permit are shown in Table II.

Table II

Pollutant	Burning Bagasse 100%		Burning Bagasse with Fuel Oil	
	lb/MMBtu	lb/hr	lb/MMBtu	lb/hr
PM	0.15	29.2	0.14	27.9
SO <sub>2</sub>	0.49	95.1	0.55	106.1
CO	0.27	53.1	0.28	53.8
VOC	0.27	53.1	0.27	53.2
NOx	0.16	31.9	0.19	36.5

A recent BACT determination for a bagasse-fired boiler that has been issued since the No. 5 boiler was initially permitted was more restrictive than the BACT for boiler No. 5. The original emission rate standards (lb/MMBtu) will not be relaxed in any permit revisions for this boiler. More details on the evaluation that established the original emission standards are in the August 28, 1981, Preliminary Determination for this boiler that is on file in the department's office in Ft. Myers and the Palm Beach County Health Department in West Palm Beach.





## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## REGION IV

335 COURTLAND STREET  
ATLANTA, GEORGIA 30333

NOV 17 1986

CERTIFIED MAIL  
RETURN RECEIPT REQUESTEDMr. Jose F. Alvarez  
General Manager  
Atlantic Sugar Association  
Post Office Drawer B  
Belle Glade, Florida 33430

RE: PSD-FL-078 Permit Modification

Dear Mr. Alvarez:

This letter is in response to your July 15, 1985, request to increase steam production at the No. 5 bagasse boiler at your facility in Belle Glade, Florida. This boiler was permitted by EPA on December 4, 1981, and your request to increase steam production due to decreased fuel moisture content and boiler improvements will result in increases in all regulated pollutants (except sulfur dioxide emissions) at levels which are less than the significant levels for those pollutants contained in 40 CFR 52.21. The Florida Department of Environmental Regulation (FDER) issued a preliminary and final determination on February 4, 1986, and October 14, 1986, respectively, recommending that the EPA PSD permit PSD-FL-078 be modified to reflect the increase in steam production.

Based upon the FDER's recommendation in the final determination, your PSD permit (PSD-FL-078) is hereby modified as follows:

1. Specific Condition No. 2 is revised to reflect minor (non-significant) increases in regulated pollutants due to the increased steam production as follows:

<u>POLLUTANT</u>	<u>MAX. EMISSION RATE</u>	
	<u>(lb/10<sup>6</sup> Btu)</u>	<u>(lb/hr) (TPY)</u>
Particulate Matter	0.150 (bagasse)	38.0
	0.10 (fuel oil)	57.0
Sulfur Dioxide	0.30 (bagasse)	96.0
	1.10 (fuel oil)	144.0
Nitrogen Oxides	0.160 (bagasse)	46.5
	0.40 (fuel oil)	69.8
Volatile Organic Compounds	0.250 (bagasse)	63.3
	0.00 (fuel oil)	95.0
Carbon Monoxide	0.270 (bagasse)	68.3
	0.030 (fuel oil)	102.5
Visible Emissions	30% Opacity	

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NOV 24 1986

ATLANTIC SUGAR ASSOC.

-2-

\* When bagasse and oil are burned together, the allowable emissions are determined by prorating the standards for each fuel by the heat input.

2. Specific Condition No. 5 is hereby revised to limit boiler operating time from 3528 hours to 3000 hours per year during the season from October to April.

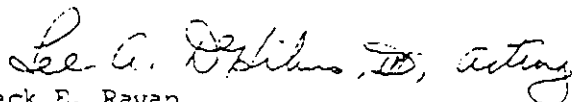
3. Specific Condition No. 6 is hereby revised as follows:

"Performance tests shall be made while Boiler No. 6 is within 10% of full operating capacity and conducted in accordance with each applicable, promulgated EPA reference method as contained in 40 CFR 60, Appendix A. Each pollutant referenced by emissions limitations within this permit modification shall be tested in accordance with 40 CFR 60.8".

Please be advised that the modification to your PSD permit herein described shall become a binding part of permit PSD-FL-078. This permit modification shall become effective upon receipt of this letter, unless you notify us of your unacceptance of the conditions contained herein within ten (10) days after receipt of this letter.

If you have any questions regarding this permit modification, please contact me or Mr. Bruce P. Miller, Chief, Air Programs Branch at (404) 347-2864.

Sincerely yours,



Jack E. Ravan  
Regional Administrator

cc: Mr. C.H. Fancy, Deputy Director  
Florida Department of Environmental Regulation

Mr. Peter C. Cunningham, Esq.  
Hopping, Boyd, Green & Sams  
Suite 420, First Florida Bank Building  
Post Office Box 6526  
Tallahassee, Florida 32314

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NOV 24 1986

ATLANTIC SUGAR ASSOC.

Fold at line over top of envelope to the right of the return address

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

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

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

1.  Addressee's Address
2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Hector Cardente  
Atlantic Sugar Assoc  
P.O. Box 1570  
Belle Glade, FL  
33430

4a. Article Number

2 333 618 161

4b. Service Type

- Registered  Certified  
 Express Mail  Insured  
 Return Receipt for Merchandise  COD

7. Date of Delivery

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

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

X. *Hector Cardente*

PS Form 3811, December 1994

102595-97-B-0179

Domestic Return Receipt

Thank you for using Return Receipt Service.

Z 333 618 161

US Postal Service  
**Receipt for Certified Mail**

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

Sent to	<i>Hector Cardente</i>	
Street & Number	<i>Atlantic Sugar</i>	
Post Office, State, & ZIP Code	<i>Belle Glade, FL</i>	
Postage	\$	
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	
Postmark or Date	<i>Atlantic Sugar</i>	<i>6-10-99</i>
	<i>Boiler #5</i>	

PS Form 3800, April 1995

**Golder Associates Inc.**

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



May 21, 1999

9837507-0300

Florida Department of Environmental Protection  
Division of Air Resources Management, Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Fl 32399-2400

**RECEIVED**

**MAY 24 1999**

**BUREAU OF  
AIR REGULATION**

Attention: Mr. Jeff Koerner, P.E., New Source Review Section

RE: ATLANTIC SUGAR ASSOCIATION BOILER NO. 5

Dear Mr. Koerner:

I have received your letter dated May 6, 1999, regarding Atlantic Sugar Association's (ASA) inquiry into permitting requirements for increasing the operating hours for Boiler No. 5 at its sugar mill located west of West Palm Beach, Palm Beach County, Florida. The purpose of this letter is to clarify and correct certain information that was presented in my April 23 letter to the Department.

In regard to Boiler No. 5 operation during the 1998-1999 crop season, an error was made in reporting the total steam production for the boiler. The total steam production was in fact 251,875,600 lbs (251.9x10<sup>6</sup> lbs), and not 308.8x10<sup>6</sup> lbs as reported in the April 23 correspondence. Based on the actual operating hours of 2,582 hours for Boiler No. 5, the average steam production was 97,550 lb/hr. This is well below the permit limit of 115,000 lb/hr, 24-hr average.

The actual steam production records are attached for your information. Review of the steam production log shows that steam production for Boiler No. 5 did not exceed 2,760,000 lbs on any given day (i.e., 115,000 lb/hr x 24 hrs). It is also noted that representatives from Palm Beach County Health Unit visited the facility during the mill compliance testing and also the day after the end of the 1998-1999 crop season and reviewed the steam production records at that time, and found no problem.

In regards to the original EPA PSD permit for Boiler No. 5, the Department issued the Technical Evaluation and Preliminary Determination for the proposed increase on February 4, 1986 (copy attached). In the TE&PD, under Rule Applicability, the Department specifically states that "The proposed project, a minor modification to a major source, is not subject to review under federal regulations because the modification will not result in a significant net emissions increase of any criteria pollutant. The permit the state proposes to issue in response to the applicant's request will succeed the federal permit (PSD-FL-078) that was originally issued to Atlantic Sugar Association for this boiler although any condition in the federal permit that is not modified by the state permit will remain in effect and be

enforceable by the regulatory agencies." No requirement can be found in either the TE&PD or the subsequently issued construction permit (copy attached) that indicates that the original PSD permit must be amended by EPA.

Nevertheless, EPA did amend the original PSD permit on November 17, 1986 in response to ASA's request to increase steam production (copy attached). It is noted that the original PSD permit issued by EPA did not include any limits on steam production. However, the revised emission rates reflect the higher steam limit as well as reduced annual operating hours.

Based upon your response to the potential permitting requirements for Boiler No. 5, Atlantic Sugar is considering whether or not to proceed with preparing a construction permit application. We will advise you if a decision is made to proceed. Please contact me directly if you have any questions concerning this additional information.

Sincerely,

GOLDER ASSOCIATES INC.

*David A. Buff*

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

DB/jkk

Enclosures

cc: Hector Cardentey  
Bill Tarr  
Phil Barbaccia, FDEP Ft. Myers  
A.J.Satyal, Palm Beach County

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CROP 1998 - 99 -

STEAM

(2)

DATE	B1	B2	B3	B4	B5	TOTAL
NOV 25 1998	1865300	2056600	1199000	1403800	1592200	8116900
NOV 26 1998	3029800	3131400	1999900	2248600	2505200	12914900
NOV 27 1998	2940500	3002100	2102000	2311000	2410800	12766400
NOV 28 1998	2984000	2988500	1785500	1831900	2540800	12130700
NOV 29 1998	2359900	2421900	1361900	1124900	1579500	8848100
NOV 30 1998	3314800	3210100	1978200	2193100	2207200	12903400
DEC -1 1998	3005300	3045900	2164600	2284500	2325200	12825500
DEC -2 1998	3099500	2909400	2246200	2379900	2517900	13152900
DEC -3 1998	3039900	2858700	2206400	2200500	2320800	12626300
DEC -4 1998	2791600	2777400	2060500	2132000	2470700	12232200
DEC -5 1998	3102200	3062700	2050900	2005900	2196700	12418400
DEC -6 1998	2897400	2885900	2100900	2219500	2362500	12416700
DEC -7 1998	2738800	2791600	2147500	2281000	2295300	12254200
DEC -8 1998	3106900	2804000	2125900	2386200	2153300	12576300
DEC -9 1998	2910300	2737900	2373900	2365600	2270900	12658600
DEC 10 1998	2779200	2598400	2407000	2247400	2371400	12403400
DEC 11 1998	2918900	2280700	2285100	2196100	2381000	12561800
DEC 12 1998	2864500	2523600	1652300	1768200	1906200	10714800
DEC 13 1998	3200000	2925000	2016600	2153300	2268800	12563700
DEC 14 1998	3089700	2860300	2337200	2351300	2269000	12907500
DEC 15 1998	3081500	2831500	2260800	2268000	2497200	12939000
DEC 16 1998	2982400	2866800	2201700	2195800	2445500	12742200
DEC 17 1998	2918400	2614100	2286300	2161300	2490800	12470900
DEC 18 1998	2978700	2636300	2224900	2199200	2496700	12546000
DEC 19 1998	3010200	2649100	1925700	1930900	2411300	11927700
DEC 20 1998	2982500	2776100	1880800	1926800	2537500	12891100
DEC 21 1998	2940000	2715900	2221600	2207700	2535400	12620600
DEC 22 1998	2895100	2631400	2113700	2376000	2538300	12554500

2537500  
2769600

CROP - 1998 - 99

STEAM

(3)

DATE	B1	B2	B3	B4	B5	TOTAL
DEC 23 1998	2047700	2523000	1722800	2253000	2042900	10,589,400
DEC 24 1998	0	89,700	0	51,500	5,600	146,800
DEC 25 1998	108,300	330,800	22,000	170,300	14,300	645,700
DEC 26 1998	3009900	2934800	2125700	2070600	2418300	12,559,300
DEC 27 1998	2922000	2800400	2373400	2249000	2479400	12,824,200
DEC 28 1998	3027500	2770200	2402800	2140800	2315800	12,657,100
DEC 29 1998	3071500	2840500	2307900	2219400	2265400	12,710,700
DEC 30 1998	3162500	2987500	2348800	2304800	2300600	13,104,200
DEC 31 1998	3022700	2916400	2496500	2304000	2307300	13,046,900
JAN -1 1999	2899300	2762500	2576900	2249700	2375900	12864300
JAN -2 1999	3009600	2947700	2545100	2573300	90300	11,166,000
JAN -3 1999	406,500	302,500	262,400	309,200	6,200	1,286,800
JAN -4 1999	2831,400	1930,500	2346,900	2451,500	2061,400	11,621,700
JAN -5 1999	3140,400	2809,000	2346,100	2658,300	2395,000	13,348,800
JAN -6 1999	3076,300	2599,800	2476,900	2646,000	2372,200	13,171,200
JAN -7 1999	2961,300	2643,100	2422,800	2469,200	2310,800	12,807,200
JAN -8 1999	2913,800	2593,400	2516,500	2600,800	2552,300	13,176,300
JAN -9 1999	3067,600	2671,900	2159,600	2358,600	2345,000	12,603,700
JAN 10 1999	3279,300	2984,400	2157,700	2406,800	2296,100	13,123,700
JAN 11 1999	3040,100	2731,200	2355,100	2530,000	2539,600	13,196,000
JAN 12 1999	2970,200	2658,100	2306,100	2556,700	2580,000	13,071,100
JAN 13 1999	2958,900	2575,500	2251,000	2555,300	2670,500	13,011,200
JAN 14 1999	3004,700	2660,100	2272,200	2468,100	2609,400	13,014,500
JAN 15 1999	2731,200	2243,300	1897,400	2338,600	2193,800	11,204,300
JAN 16 1999	2869,200	2619,100	2175,500	2346,100	2164,300	12,174,200
JAN 17 1999	2850,400	2609,100	2159,000	2532,800	2469,200	12,609,500
JAN 18 1999	2976,600	2682,000	2211,600	2560,400	2657,700	13,088,300
JAN 19 1999	2852,500	2277,000	1634,000	2441,400	2113,000	11,317,900
					154,518,900	

CROP 1998-99

STEAM

①

DATE	B1	B2	B3	B4	B5	TOTAL
JAN 20 1999	2920500	2601800	2036300	2428600	2297700	12284900
JAN 21 1999	2912900	2544000	2046200	2484000	2386800	12444300
JAN 22 1999	2963500	2401000	2077700	2501800	2428200	12372200
JAN 23 1999	3501600	3137900	17700	2828500	2490700	11976400
JAN 24 1999	641500	683200	—	345900	—	1670600
JAN 25 1999	2823300	2559400	1648400	1976800	1907100	10955000
JAN 26 1999	3035400	2697400	2104100	2354500	2503200	12694600
JAN 27 1999	2875800	2517900	2159000	2272900	2168800	11994400
JAN 28 1999	2429800	2349100	1713900	2098400	1927800	10519000
JAN 29 1999	2866300	2597300	2244500	2322500	2353400	12384100
JAN 30 1999	2935100	2835200	2154300	2298700	2172700	12396000
JAN 31 1999	3083200	2803500	2026900	2296000	2397300	12606900
FEB -1 1999	3003400	2629100	1893700	2110200	2042600	11679000
FEB -2 1999	397500	404100	13800	43800	—	859200
FEB -3 1999	2929900	2472500	1933900	2505200	2450600	12292100
FEB -4 1999	2904700	2503100	2001200	2497000	2474400	12480400
FEB -5 1999	2489100	2432300	1982200	2457000	2489200	12209800
FEB -6 1999	2747600	2261500	1873600	2238600	2401600	11522900
FEB -7 1999	2782000	2346000	1895900	2278800	2557600	11860300
FEB -8 1999	2897800	2426500	1959100	2340500	2551100	12175000
FEB -9 1999	2801200	2330100	1931500	2204600	2048500	11315900
FEB 10 1999	2710600	2404500	2022000	2258900	2290000	11686000
FEB 11 1999	2750200	2447500	2022400	2139500	2406400	11766000
FEB 12 1999	2432200	2529300	2048700	2244200	2399300	12054300
FEB 13 1999	2594200	2460300	1912700	2067700	2001500	11038400
FEB 14 1999	2544400	2030700	2279500	1642900	1613200	9110700
FEB 15 1999	2543000	2444300	1814100	2311900	2259700	11373000
FEB 16 1999	2860800	2641100	1945400	2162100	284200	9893600



⑤

CROP 1998-99.

STEAM

DATE	B1	B2	B3	B4	B5	TOTAL
FEB 17 1999	2,127,000	2,787,300	2,120,400	2,656,500	0	10,691,200
FEB 18 1999	2,199,300	2,716,200	1,982,600	2,657,800	0	10,555,900
FEB 19 1999	2,365,200	2,902,700	2,153,200	2,681,000	0	11,102,100
FEB 20 1999	2,393,200	2,924,500	2,262,700	2,620,600	0	11,201,000
FEB 21 1999	2,437,600	2,037,200	2,223,100	2,611,000	0	11,308,900
FEB 22 1999	2,268,100	2,750,800	2,132,600	2,319,200	1,781,500	12,252,200
FEB 23 1999	2,017,500	2,268,200	1,665,200	2,133,500	1,864,200	10,948,600
FEB 24 1999	2,104,400	2,620,400	2,185,000	2,277,600	2,390,500	12,577,900
FEB 25 1999	2,970,400	2,617,800	1,977,200	2,346,500	2,375,300	12,287,200
FEB 26 1999	2,834,100	2,592,600	1,268,100	2,334,300	2,236,600	11,257,700
FEB 27 1999	2,767,800	2,639,200	1,488,200	2,137,700	1,913,800	10,946,700
FEB 28 1999	2,053,800	2,842,200	1,857,500	2,305,400	2,062,000	12,120,900
MAR -1 1999	2,893,700	2,490,200	1,772,400	2,293,200	2,367,800	11,817,300
MAR -2 1999	2,971,000	2,513,000	2,061,400	2,270,600	2,177,200	11,993,200
MAR -3 1999	2,061,300	2,685,800	1,938,400	2,143,300	2,175,200	12,004,100
MAR -4 1999	2,021,100	2,637,000	1,861,600	2,299,300	2,355,900	12,165,900
MAR -5 1999	2,011,300	2,617,500	1,970,700	2,265,600	2,181,600	12,049,700
MAR -6 1999	2,138,100	2,762,100	2,110,200	2,324,600	407,700	10,742,700
MAR -7 1999	2,229,000	2,977,600	2,371,300	2,615,600	0	11,293,500
MAR -8 1999	2,278,800	2,856,900	2,123,400	2,404,100	1,428,900	12,086,100
MAR -9 1999	2,074,300	2,684,100	2,042,000	2,321,800	2,192,200	12,314,400
MAR 10 1999	2,859,600	2,449,000	2,035,400	2,288,600	1,962,600	11,595,200
MAR 11 1999	2,875,500	2,568,900	2,137,000	2,276,700	2,231,600	12,089,300
MAR 12 1999	2,049,900	2,618,500	2,091,900	2,343,700	2,462,600	12,566,600
MAR 13 1999	2,065,300	2,755,600	2,100,000	2,374,800	2,463,700	12,759,400
MAR 14 1999	2,114,300	2,041,400	783,900	1,385,700	969,000	8,194,300
MAR 15 1999						

**ORIGINAL EPA PSD PERMIT  
(DECEMBER 1981)**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

DEC 4 1981

REF: 4AW-AF

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

H. J. Valella  
Executive Vice President  
Atlantic Sugar Association  
P.O. Drawer B  
Belle Glade, Florida 33430

Re: PSD-FL-078

Dear Mr. Valella:

Review of your March 30, 1981, application to construct a new bagasse/fuel oil boiler at your facility near Belle Glade, Palm Beach County, Florida, has been completed. The construction is subject to rules for the Prevention of Significant Air Quality Deterioration (PSD) contained in 40 CFR 52.21. The Florida Bureau of Air Quality Management performed the preliminary determination concerning the proposed construction and published a request for public comment on September 2, 1981. Comments were submitted by your company and the US EPA.

Authority to construct a stationary source is hereby granted for the facility described above, subject to the conditions in the permit to construct (enclosed). This authority to construct is based solely on the requirements of 40 CFR 52.21, the federal regulations governing significant deterioration of air quality. It does not apply to other permits issued by this agency or by other agencies. The complete analysis which justifies this approval has been fully documented for future reference, if necessary. Please be advised that a violation of any condition issued as part of this approval, as well as any construction which proceeds in material variance with information submitted in your application, will be subject to enforcement action.

**RECEIVED**

DEC 12 1981

ATLANTIC SUGAR ASSOC.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

PERMIT TO CONSTRUCT UNDER THE RULES FOR THE  
PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY

Pursuant to and in accordance with the provisions of Part C, Subpart 1 of the Clear Air Act, as amended, 42 U.S.C. § 7470 et seq., and the regulations promulgated thereunder at 40 C.F.R. § 52.21, as amended at 45 Fed. Reg. 52676, 52735-41 (August 7, 1980),

Atlantic Sugar Association  
P.O. Drawer B  
Belle Glade, Florida 33430

is hereby authorized to construct/modify a stationary source at the following location:

Belle Glade, Florida

UTM Coordinates: 2,945.9 km. N, 552.9 km E.

Upon completion of this authorized construction and commencement of operation/production, this stationary source shall be operated in accordance with the emission limitations, sampling requirements, monitoring requirements, and other conditions set forth in the attached Specific Conditions (Part I) and General Conditions (Part II).

This permit shall become effective on DEC 4 1981

If construction does not commence within 18 months after the effective date of this permit, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time this permit shall expire and authorization to construct shall become invalid.

This authorization to construct/modify shall not relieve the owner or operator of the responsibility to comply fully with all applicable provisions of Federal, State, and Local law.

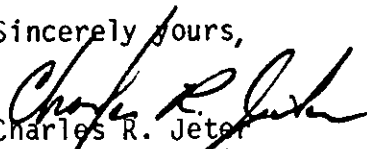
Dec. 4, 1981  
Date Signed

Charles R. Peter  
Charles R. Peter  
Regional Administrator

This final permitting decision is subject to appeal under 40 CFR 124.19 by petitioning the Administrator of the US EPA within 30 days after receipt of this letter of approval to construct. The petitioner must submit a statement of reasons for the appeal and the Administrator must decide on the petition within a reasonable time period. If the petition is denied, the permit becomes immediately effective. The petitioner may then seek judicial review.

Any questions concerning this approval may be directed to Dr. Kent Williams, Chief, New Source Review Section at (404) 881-4552.

Sincerely yours,

  
Charles R. Jeter  
Regional Administrator

APPLICANT: Atlantic Sugar Association

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.

<u>Pollutant</u>	<u>Burning Bagasse 100%</u>		<u>Burning Bagasse with Fuel Oil</u>	
	lb/MMBTU	lb/hr	lb/MMBTU	lb/hr
PM	0.15	29.2	0.14	27.9
SO <sub>2</sub>	0.49	95.1	0.55	106.1
CO	0.27	53.1	0.28	53.8
VOC	0.27	53.1	0.27	53.2
NO <sub>x</sub>	0.16	31.9	0.19	36.5

Sulfur content of the fuel oil fired in the proposed boiler shall not exceed 1.0 percent.

Emissions of VOC and CO shall be maintained at the lowest possible level through the installation, calibration, and operation of a flue gas oxygen monitor as described in the attached article: "Use of Flue Gas Oxygen Meter as BACT for Combustion Controls".

The boiler shall not be operated more than 3,528 hours per year during the season from October to April.

Compliance with the emission limits required in condition No. 2 shall be determined by performance tests while the boiler is at or close to full operating capacity. 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. EPA reference method 25 shall be used to determine VOC emissions.

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.

Instruments shall be installed, calibrated, and maintained to continuously measure the fuel oil used by the proposed boiler. The records of fuel oil usage will be kept by the company, available for regulatory agencies inspection for a two-year period.

ICANT: Atlantic Sugar Association

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 one year.

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.

Atlantic Sugar Association will take precautions to exclude the general public from the company's property surrounding the plant during the operating season.

Part II

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 Waste Management Division  
U. S. Environmental Protection Agency  
Region IV  
345 Courtland Street  
Atlanta, Georgia 30302

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 constitutes a violation of the terms and conditions of this permit.

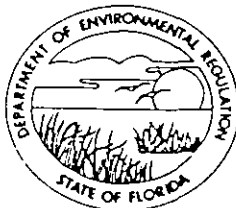
**TECHNICAL EVALUATION AND PRELIMINARY  
DETERMINATION FOR FDER CONSTRUCTION PERMIT FOR  
STEAM RATE INCREASE  
(FEBRUARY 1986)**

RECEIVED FEB 13 1986

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

February 4, 1986

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Jose F. Alvarez  
General Manager  
Atlantic Sugar Association  
Post Office Drawer B  
Belle Glade, Florida 33430

Dear Mr. Alvarez:

Attached is one copy of the Technical Evaluation and Preliminary Determination, and proposed permit that will authorize an increase in steam production of the No. 5 bagasse-fired boiler.

Before final action can be taken on your permit, you are required by Florida Administrative Code Rule 17-103.150 to publish the attached Notice of Proposed Agency Action in the legal advertising section of a newspaper of general circulation in Palm Beach County no later than fourteen days after receipt of this letter. The DER Bureau of Air Quality Management must be provided with proof of publication within seven days of the date the notice is published. Failure to publish the notice may be grounds for denial of the permit.

The Bureau has been notified that violation of the air pollution control regulations exist at this plant. The department cannot issue a permit to increase the steam production of the boiler if it or any associated equipment is in violation of the regulations. Please be advised that the issuance of a construction permit is contingent on your company correcting any violations and settling any enforcement action associated with this boiler and its accessory equipment.

State of Florida  
Department of Environmental Regulation  
Notice of Proposed Agency Action  
on Permit Application

The Department of Environmental Regulation gives notice of its intent to issue a permit to Atlantic Sugar Association that will authorize an increase in steam production of their No. 5 boiler. This boiler is located at the company's sugar mill that is 4 miles south of Belle Glade, Palm Beach County, on State Road 80.

Permitted steam production in this bagasse-fired boiler will increase from 100,000 to 130,000 lb/hr. Allowable operation time for the boiler will be reduced to 3,000 hours per season. Emissions from the boiler will increase by the following amounts.

<u>Pollutant</u>	<u>Particulate Matter</u>	<u>Sulfur Dioxide</u>	<u>Carbon Monoxide</u>	<u>Hydro- carbons</u>	<u>Nitrogen Oxides</u>
Change (TPY)	-1.1	-43.7	-3.2	-55.7	+5.4

The change in emissions from this boiler will not cause a significant increase in the ambient air concentration at ground level of any of these criteria pollutants. The boiler will remain subject to the best available control technology determination that was issued for it when it was originally installed at this mill.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period constitutes a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

Technical Evaluation  
and  
Preliminary Determination

Atlantic Sugar Association  
Belle Glade, Florida  
Palm Beach County

No. 5 Bagasse-Fired Boiler Modification  
File No. AC 50-107181

Florida Department of Environmental Regulation  
Bureau of Air Quality Management  
Central Air Permitting

February 5, 1986

Table I

Pollutant	Present Production (a)		Proposed Production (b)		Change	
	max. lb/hr	TPY(g)	max. lb/hr(c)	TPY(d)	lb/hr	TPY
Particulate Matter (e)	29.2	51.4	37.9	50.3	+8.7	-1.0
Sulfur Dioxide(f)	106.1	167.8	93.6	124.1	-12.5	-43.7
Carbon Monoxide(e)	53.1	93.7	68.2	90.5	+15.1	-3.2
Hydrocarbon(e)	53.1	93.7	25.3(h)	38.0	-27.8	-55.7
Nitrogen Oxides(f)	36.5	56.3	46.5	61.7	+10.0	+5.4

(a) 3,528 hr/season maximum allowed operation

(b) 3,000 hr/season maximum allowed operation

(c) 130,000 lb/hr maximum hourly steam production allowed

(d) 115,000 lb/hr maximum daily average steam produced allowed

(e) Boiler using 100 percent bagasse fuel

(f) Boiler using bagasse with No. 6 oil as supplementary fuel

(g) From the Public Notice for Construction Permit  
No. AC 50-42389

(h) Allowable hydrocarbon emissions are reduced to the potential emissions as specified in Specific Condition No. 13 of Construction Permit No. AC 50-42389

## II. RULE APPLICABILITY

### A. State Regulations

The proposed project, increasing the steam production from an existing carbonaceous fuel fired boiler (No. 6 oil supplementary fuel) located at a sugar mill, is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code.

The affected boiler is located in an area designated nonattainment for ozone (Rule 17-2.410, FAC), and attainment for the other criteria pollutants (17-2.420).

Sugar mills, which are chemical process plants, are listed in Table 500-2, Major Facility Categories (list of 28). The sugar mill is a major facility (17-2.100) because the emissions of particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), volatile organic compounds (VOC), and nitric oxides (NO<sub>x</sub>) exceed 100 TPY for each of these criteria pollutants. However, the increase in emissions resulting from the proposed project are less than the significant emission rates listed in Table 500-2, Regulated Air Pollutants-Significant Emission Rates.

The project is not subject to the prevention of significant deterioration regulations (17-2.500) and new source review for nonattainment areas (17-2.510) because the modification does not result in a significant emission increase of any criteria pollutant (17-2.500(2)(d)4.a(ii) and 17-2.510(2)(d)4.a.).

The project will be reviewed under Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements. Allowable emissions will be based on the best available control technology (BACT) determination issued for this source when it was originally constructed by the applicant and the emissions currently being proposed by the applicant. Higher emissions could subject this modification to review under other regulations.

### B. Federal Regulations

The proposed project, a minor modification to a major source, is not subject to review under federal regulations because the modification will not result in a significant net emissions increase of any criteria pollutant. The permit the state proposes to issue in response to the applicant's request will succeed the federal permit (PSD-FL-078) that was originally issued to Atlantic Sugar Association for this boiler although any condition in the federal permit that is not modified by the state permit will remain in effect and be enforceable by the regulatory agencies.



### III. Technical Evaluation

The emission standards in the initial permit to construct (AC 50-42389) that was issued for the No. 5 boiler and Joy Turbulaire impingement type scrubber were based on BACT and LAER determinations. A BACT determination addressed all criteria pollutants except VOC. The VOC standard was established by a LAER determination. A reliable VOC emission factor for bagasse boilers was not available when the initial application to construct this boiler was processed. Based on the estimated emissions in the original application, it was necessary to assign 93.7 TPY new source allowance for VOC to this source. The department believed the VOC emission factor used by the applicant was high and, as a condition of the original construction permit (Specific Condition No. 13 of permit No. AC 50-42389), required any excess VOC new source allowance be returned to Palm Beach County. Actual test data on this boiler shows it will emit less than the significant emission rate of 40 TPY VOC after the modification. Under current state regulations, all 93.7 TPY of VOC from the new source allowance initially assigned to this boiler is returned to the new source allowance for Palm Beach County. If the VOC emissions from this boiler exceeds 40 TPY in the future, a new allowable VOC emission standard, based on a revised LAER determination, will be assigned to this boiler.

The maximum allowable emission rates from Specific Condition No. 2 of the original state construction permit are shown in Table II.

Table II

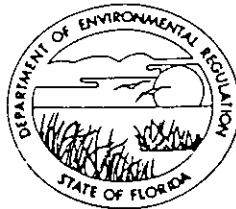
Pollutant	Burning Bagasse 100%		Burning Bagasse with Fuel Oil	
	lb/MMBtu	lb/hr	lb/MMBtu	lb/hr
PM	0.15	29.2	0.14	27.9
SO <sub>2</sub>	0.49	95.1	0.55	106.1
CO	0.27	53.1	0.28	53.8
VOC	0.27	53.1	0.27	53.2
NOx	0.16	31.9	0.19	36.5

A recent BACT determination for a bagasse-fired boiler that has been issued since the No. 5 boiler was initially permitted was more restrictive than the BACT for boiler No. 5. The original emission rate standards (lb/MMBtu) will not be relaxed in any permit revisions for this boiler. More details on the evaluation that established the original emission standards are in the August 28, 1981, Preliminary Determination for this boiler that is on file in the department's office in Ft. Myers and the Palm Beach County Health Department in West Palm Beach.

**FDEP CONSTRUCTION PERMIT FOR STEAM RATE INCREASE  
(OCTOBER 1986)**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

PERMITTEE:  
Atlantic Sugar Association  
P. O. Drawer B  
Belle Glade, Florida 33430

Permit Number: AC 50-107181  
Expiration Date: June 30, 1986  
County: Palm Beach  
Latitude/Longitude: 26° 37' 44"N/  
80° 28' 06"W  
Project: No. 5 Boiler Modifications

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

Authorization to increase steam production in the existing No. 5 bagasse-fired (No. 6 oil supplementary fuel) boiler which is equipped with an impingement type scrubber, from 100,000 to 130,000 lbs of 250 psig/500°F steam per hour. The No. 5 boiler is located at Atlantic Sugar Association's existing sugar mill that is approximately 4 miles south of Belle Glade, Palm Beach County, on State Road 80. The UTM coordinates of the proposed plant are zone 17, 552.9 km E and 2945.2 km N.

The modification shall be in accordance with the attached permit application, plans, documents, and drawing except as noted in the specific conditions of this permit.

Attachments are as follows:

1. Application to Construct Air Pollution Sources, DER form 17-1.202(1), October 21, 1985.
2. July 16, 1985, Hopping, Boyd, Green and Sams letter.
3. August 9, 1985, Department letter.
4. October 17, 1985, Atlantic Sugar Association letter.
5. November 8, 1985, Department letter.
6. November 18, 1985, Atlantic Sugar Association letter.
7. December 6, 1985, Department letter.
8. December 16, 1985, Atlantic Sugar Association letter.

PERMITTEE:  
Atlantic Sugar Association

Permit Number: AC 50-107181  
Expiration Date: June 30, 1986

GENERAL CONDITIONS:

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. Steam production shall not exceed 130,000 lb/hr (1 hr/avg) of 250 psig and 500°F steam. The boiler may operate for up to 6 hrs per day at 130,000 lb/hr. The boiler's average steam production rate shall not exceed 115,000 lb/hr during any calendar day. Steam with a higher enthalpy shall not be produced by this boiler without prior approval of the department. The boiler shall be equipped with an instrument to continuously record steam production. Steam production records shall be kept for a minimum of 5 years.

PERMITTEE:  
Atlantic Sugar Association

Permit Number: AC 50-107181  
Expiration Date: June 30, 1986

SPECIFIC CONDITIONS:

2. Heat input to this boiler shall not exceed 252.65 million Btu per hour as determined by an energy balance that assumes the boiler is 55 percent efficient. Approximately 32.8 TPH of wet bagasse will produce 252.65 million Btu per hour.

3. Heat input from No. 6 residual oil to this boiler shall not exceed 25.1 million Btu per hour. Approximately 168 gallons per hour of No. 6 oil will produce 25.1 million Btu per hour. The fuel oil system shall be equipped with an intergrating fuel oil flow meter or continuous recorder to measure the amount of fuel oil consumed by the boiler. The measuring device shall be calibrated annually by a method approved by the department.

4. The maximum allowable emissions from the No. 5 boiler shall be as follows:

Pollutant	Max. Emission Rate (lb/10 <sup>6</sup> Btu) *	Max. Emissions (lb/hr)
Particulate Matter	0.15 (bagasse) 0.1 (fuel oil)	37.9
Sulfur Dioxide	0.29 (bagasse) 2.6 (fuel oil)	93.6
Nitrogen Oxides	0.16 (bagasse) 0.40 (fuel oil)	46.5
Volatile Organic Compounds	0.10 (bagasse) 0.00 (fuel oil)	25.3
Carbon Monoxide	0.27 (bagasse) 0.007 (fuel oil)	68.2
Visible Emissions	20% Opacity (6 minute average except 40% opacity allowed for 2 minutes per hour	

\* Compliance with the standards shall be determined by EPA Reference Methods 1, 2, 3, 4, 5, 6, 7, 9, 10 and 25 as described in 40 CFR 60, Appendix A.

PERMITTEE:  
Atlantic Sugar Association

Permit Number: AC 50-107181  
Expiration Date: June 30, 1986

SPECIFIC CONDITIONS:

5. 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.

6. Any No. 6 fuel oil burned in the No. 5 boiler shall contain no more than 2.4 percent sulfur and shall be replaced during the season in which it was burned with fuel oil containing no more than 1 percent sulfur. Compliance with this condition shall be determined from certified analysis of the replacement oil by ASTM Method D-1552. Records of the quantity and analysis of fuel oil consumed in the No. 5 boiler and invoices for the replacement oil purchased shall be kept for a minimum of 5 years.

7. 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, and with a flow meter or equivalent device (weir) to measure the quantity of water circulating through the scrubber. The pH of the scrubber water at the scrubber inlet and outlet shall also be measured. Data from these instruments shall be recorded each shift (every 8 hours) and available to regulatory agencies for 5 years. During compliance tests, these parameters shall be recorded every 15 minutes. The boiler shall not be operated if the pressure drop across the scrubber is less than 7 inches of water, the pressure on the spray nozzles is less than 35 psig on 14 spray nozzles and 60 psig on 24 spray nozzles, and the flow through the scrubber is less than 550 GPM. These parameters may be increased in the future if higher values are needed to assure compliance.

8. Prior to the expiration of this construction permit, a test shall be made on the No. 5 boiler to determine its actual thermal efficiency in accordance with the ASME short-form procedure. This test must be repeated each time the permit to operate this boiler is renewed (every 5 years). The tests shall be done while the tubes are clean and within 14 days of the compliance tests. A current report on the thermal efficiency test must be included with the application for permit to operate this boiler.

9. Compliance with all emission standards for the No. 5 boiler, except particulate matter and visible emissions, may be based on emission factors established by previous EPA reference method tests on this boiler. As a condition of this construction permit, particulate matter and visible emissions tests shall be conducted concurrently on the boiler while it is operating at its maximum or permitted capacity, whichever is lower. Any permit to operate issued

PERMITTEE:  
Atlantic Sugar Association

Permit Number: AC 50-107181  
Expiration Date: June 30, 1986

**SPECIFIC CONDITIONS:**

for this boiler will restrict production to the quantity that existed during the compliance tests. The compliance tests results shall be calculated by assuming the thermal efficiency of the boiler is 55 percent, or by any new method subsequently adopted by department rule. For information purposes only, the particulate matter emission rate shall also be calculated by utilizing both the F factor and the actual boiler efficiency as determined by the latest ASME boiler efficiency test. The scrubber parameters listed in Specific Condition No. 7 that existed during the compliance test shall be included in the test report. The South Florida District office shall be notified 15 days prior to any compliance test.

10. After the initial reference method tests that showed compliance with the allowable emission standards for this boiler, the company may substitute an Operation and Maintenance plan that is approved by the department that optimizes the NO<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emissions for the compliance tests specified in Specific Conditions Nos. 4 and 9.

11. The permittee will demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the South Florida District office at least 90 days prior to the June 30, 1986, expiration date of this construction permit or 60 days after the No. 5 boiler reaches its maximum or permitted steam production rate, whichever date occurs first. A copy of the initial emission tests report for all regulated air pollutants shall be sent to the Bureau of Air Quality Management. The permittee may continue to operate in compliance with all terms of this construction permit until its expiration date. Commercial operation of this boiler is not authorized unless it is in compliance with all conditions in the applicable permits.

12. Any permit to operate issued for the No. 5 boiler shall limit its operations to 3,000 hours per season and the steam production capacity to that which existed during the Reference Method 5 test, require (as a minimum) annual particulate matter and visible emissions tests, and an annual operation report which includes the quantity of oil burned in this boiler during the season and sulfur content of the replacement oil purchased.

PERMITTEE:  
Atlantic Sugar Association

Permit Number: AC 50-107181  
Expiration Date: June 30, 1986

SPECIFIC CONDITIONS:

Issued this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

\_\_\_\_\_ pages attached.



**REVISION TO ORIGINAL EPA PSD PERMIT  
(NOVEMBER 1986)**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

NOV 17 1986

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Jose F. Alvarez  
General Manager  
Atlantic Sugar Association  
Post Office Drawer B  
Belle Glade, Florida 33430

RE: PSD-FL-078 Permit Modification

Dear Mr. Alvarez:

This letter is in response to your July 15, 1985, request to increase steam production at the No. 5 bagasse boiler at your facility in Belle Glade, Florida. This boiler was permitted by EPA on December 4, 1981, and your request to increase steam production due to decreased fuel moisture content and boiler improvements will result in increases in all regulated pollutants (except sulfur dioxide emissions) at levels which are less than the significant levels for those pollutants contained in 40 CFR 52.21. The Florida Department of Environmental Regulation (FDER) issued a preliminary and final determination on February 4, 1986, and October 14, 1986, respectively, recommending that the EPA PSD permit PSD-FL-078 be modified to reflect the increase in steam production.

Based upon the FDER's recommendation in the final determination, your PSD permit (PSD-FL-078) is hereby modified as follows:

1. Specific Condition No. 2 is revised to reflect minor (non-significant) increases in regulated pollutants due to the increased steam production as follows:

<u>POLLUTANT</u>	<u>MAX. EMISSION RATE</u> <u>(lb/10<sup>6</sup> Btu)</u>	<u>MAX. EMISSION RATE*</u> <u>(lb/hr) (TPY)</u>	
Particulate Matter	0.150 (bagasse)	38.0	57.0
	0.10 (fuel oil)		
Sulfur Dioxide	0.30 (bagasse)	96.0	144.0
	1.10 (fuel oil)		
Nitrogen Oxides	0.160 (bagasse)	46.5	69.8
	0.40 (fuel oil)		
Volatile Organic Compounds	0.250 (bagasse)	63.3	95.0
	0.00 (fuel oil)		
Carbon Monoxide	0.270 (bagasse)	68.3	102.5
	0.030 (fuel oil)		
Visible Emissions	30% Opacity		

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NOV 24 1986  
ATLANTIC SUGAR ASSOC.

-2-

\* When bagasse and oil are burned together, the allowable emissions are determined by prorating the standards for each fuel by the heat input.

2. Specific Condition No. 5 is hereby revised to limit boiler operating time from 3528 hours to 3000 hours per year during the season from October to April.

3. Specific Condition No. 6 is hereby revised as follows:

"Performance tests shall be made while Boiler No. 6 is within 10% of full operating capacity and conducted in accordance with each applicable, promulgated EPA reference method as contained in 40 CFR 60, Appendix A. Each pollutant referenced by emissions limitations within this permit modification shall be tested in accordance with 40 CFR 60.8".

Please be advised that the modification to your PSD permit herein described shall become a binding part of permit PSD-FL-078. This permit modification shall become effective upon receipt of this letter, unless you notify us of your unacceptance of the conditions contained herein within ten (10) days after receipt of this letter.

If you have any questions regarding this permit modification, please contact me or Mr. Bruce P. Miller, Chief, Air Programs Branch at (404) 347-2864.

Sincerely yours,

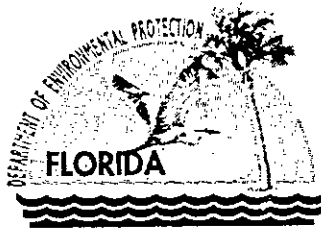
*Lee A. O'Hilary, ID, Acting*

Jack E. Ravan  
Regional Administrator

cc: Mr. C.H. Fancy, Deputy Director  
Florida Department of Environmental Regulation

Mr. Peter C. Cunningham, Esq.  
Hopping, Boyd, Green & Sams  
Suite 420, First Florida Bank Building  
Post Office Box 6526  
Tallahassee, Florida 32314

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NOV 24 1986  
ATLANTIC SUGAR ASSOC.



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

May 6, 1999

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

Re: Atlantic Sugar Association  
Boiler No. 5: 20% Increase in Annual Hours of Operation from 3000 to 3600

Dear Mr. Buff:

On April 28, 1999, the Department received your request for a determination regarding the air permitting requirements necessary to increase the annual hours of operation from 3000 to 3600 for Boiler No. 5 at Atlantic Sugar Association's sugar mill. The increased operation is desired to accommodate the processing of additional sugarcane available as a result of the closing of the Talisman sugar mill. Based on the information you provided and a review of our files, it will be necessary to submit an application for an air construction permit modification. The application should consider the following items:

- Air Permit AC50-107181: This air construction permit modification was issued to increase the allowable 24-hour average steam production rate from 100,000 lb/hour to 115,000 lb/hour. The Department's technical evaluation for this project indicates that Atlantic Sugar also requested a reduction in the annual hours of operation from 3528 to 3000. The proposed request would be a relaxation of this federally enforceable condition.
- EPA PSD Permit: From a review of our files, it appears that EPA issued the original PSD permit (PSD-FL-078) for Boiler No. 5 which included a 24-hour limit on steam production of 100,000 lb/hour. The Department issued a non-PSD air construction permit modification (AC50-107181) to increase this to 115,000 lb/hour. The Department indicated within this permit that the EPA must modify the original PSD permit before Atlantic Sugar could operate at the higher steam production rate authorized by the state. It is unclear from our files as to whether the EPA modification was ever issued.
- PSD Applicability Determination: Increasing a federally enforceable limit on the hours of operation is considered a "change in the method of operation" which requires a review to determine whether or not the net increase in emissions resulting from the proposed change is greater than the PSD significant emissions rates. This determination must be based on the net difference between the *future potential emissions* resulting from the proposed change and the *past actual emissions* based on the last two years of operation. Any net emissions increase greater than the corresponding significant emissions rate would trigger a BACT determination for that pollutant.
- Past Actual Emissions: Based on the information in your letter, it appears that Atlantic's Boiler No. 5 exceeded the 24-hour average allowable steam production rate of 115,000 lb/hour for the 1998/1999 crop season ( $308.8 \times 10^6 \text{ lb steam / year} \times \text{year} / 2582 \text{ hours} = 119,597 \text{ lb/hour}$ ). Therefore, the past actual emissions should be based on the highest two years of operation within the past five years, *excluding the 1998/1999 crop season*.

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

- Fuel Consumption Limits: In addition to increasing the hours of operation, it may be necessary to increase any existing limits on bagasse or fuel oil consumption limits.

Please contact me at (850) 414-7268 if you have any questions concerning this letter.

Sincerely,



Jeffery F. Koerner, P.E.  
New Source Review Section

JFK/jfk

cc: Hector Cardentey, Atlantic Sugar Association  
Phil Barbaccia, DEP – South District Office  
Jim Stormer, Palm Beach County Health Department

Filename: ATLNTC\_5.DOC

Is your RETURN ADDRESS completed on the reverse side?

<b>SENDER:</b> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
3. Article Addressed to: David Buff, PE Golden Associates 6241 NW 23rd St, Suite 500 Gainesville, FL 32653-1500	4a. Article Number Z 333 618 107	
	4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
	7. Date of Delivery 5-10-99	
5. Received By: (Print Name)	8. Addressee's Address (Only if requested and fee is paid)	
6. Signature: (Addressee or Agent) X M. Rainey		

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PS Form 3811, December 1994

102595-97-B-0179

Domestic Return Receipt

Z 333 618 107

US Postal Service  
**Receipt for Certified Mail**  
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 Do not use for International Mail (See reverse)

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Street & Number	GOLDEN ASSOC
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Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
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PS Form 3800, April 1995

**Golder Associates Inc.**

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



April 23, 1999

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

9837507-0300  
BUREAU OF  
AIR REGULATION

APR 28 1999  
RECEIVED

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

RE: ATLANTIC SUGAR ASSOCIATION BOILER NO. 5

Dear Mr. Linero:

Atlantic Sugar Association (ASA) currently operates Boiler No. 5 at its sugar mill located west of West Palm Beach, Palm Beach County, Florida. The boiler operates under Permit No. AO50-205996, dated March 12, 1992 (copy attached). The boiler was originally constructed as a PSD boiler in the early 80's, and its latest construction permit (AC50-107181), which was a non-PSD permit, was issued in 1986 (copy attached).

ASA Boiler No. 5 has limitations in its current air operating permit, as well as the previously issued construction permit, which limit the total operating hours to 3,000 hours per season. Based on the maximum 24-hour average steam rate limitation in the permits of 115,000 lb/hr, the total high pressure steam production of the boiler is limited to  $345 \times 10^6$  lbs steam/yr.

For comparison purposes, the actual steam production and operating hours of the boiler for the last 5 crop seasons is shown below:

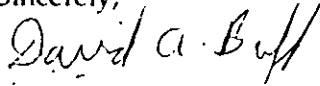
<u>Crop</u>	<u>Steam Production</u>	<u>Hours</u>
98/99	$308.8 \times 10^6$ lbs	2,582
97/98	$241.0 \times 10^6$ lbs	2,224
96/97	$124.9 \times 10^6$ lbs	1,151
95/96	$241.8 \times 10^6$ lbs	2,293
94/95	$295.1 \times 10^6$ lbs	2,785

Recently, an agreement between government agencies and Talisman Sugar has resulted in the Talisman sugar mill being closed. As a result, sugar cane previously being sent to Talisman is now being sent to other mills in the Florida sugar industry. ASA expects to receive additional cane for processing in the future. As a result, ASA desires to increase the operating hours on Boiler No. 5 to a maximum of 3,600 hr/yr (an increase of 600 hr/yr over the current permit).

In recognition of the permit limitations for ASA Boiler No. 5, and its desire to address the above described problem, it is requested that an additional  $69 \times 10^6$  lb/yr of steam allowed to be generated by Boiler No. 5. At the maximum permitted steam rate of 115,000 lb/hr (24-hour average), this would equate to an additional 600 operating hours per year. The increase in actual emissions resulting solely from an additional 600 hr/yr operation is shown in Table 1.

It is requested that the Department review this information and advise as to the permitting requirements to increase the maximum operating hours for Boiler No. 5 from 3,000 hr/yr to 3,600 hr/yr. Please advise at your earliest as we wish to proceed as quickly as possible. Please contact me directly if you have any questions concerning this request, or desire additional information.

Sincerely,



David A. Buff, P.E.

Principal Engineer

Florida P.E. # 19011

SEAL

cc: Hector Cardentey

Bill Tarr

Phil Barbaccia, FDEP Ft. Myers



Table 1. Increase in Actual Emissions Due to Increase in Hours for Boiler No. 5

Pollutant	Bagasse Firing			
	Emission Factor	Ref.	Heat Input (a) (MMBtu/yr)	Emissions (TPY)
Particulate Matter (PM)	0.12 lb/MMBtu	1	134,274	8.1
PM10	0.102 lb/MMBtu	2	134,274	6.8
Sulfur Dioxide	0.002 lb/MMBtu	1	134,274	0.13
Nitrogen Oxides	0.144 lb/MMBtu	1	134,274	9.7
Carbon Monoxide	3.21 lb/MMBtu	1	134,274	215.5
Volatile Organic Compounds	0.15 lb/MMBtu	1	134,274	10.1
Sulfuric Acid Mist	0.000123 lb/MMBtu	3	134,274	0.01
Lead	4.45E-04 lb/MMBtu	4	134,274	0.03
Mercury	3.80E-05 lb/MMBtu	5	134,274	2.55E-03
Beryllium	--	4	134,274	0

(a) Based on 600 hours at 115,000 lb/hr steam and 1946 Btu/lb.

Footnotes:

- (1) Based on average of stack tests from last 5 years.
- (2) Based on 85% of PM emissions for bagasse burning.
- (3) Based on assuming 5% of SO<sub>2</sub> emissions are equal to SO<sub>3</sub>, based on AP-42 Section 1.3, Fuel Oil Combustion Conversion of SO<sub>3</sub> to H<sub>2</sub>SO<sub>4</sub> (SO<sub>3</sub> x 98/80).
- (4) Based on AP-42, Section 1.6, Wood Waste Combustion. Represents controlled emissions.
- (5) Based on stack testing of 5 bagasse boilers in Florida.