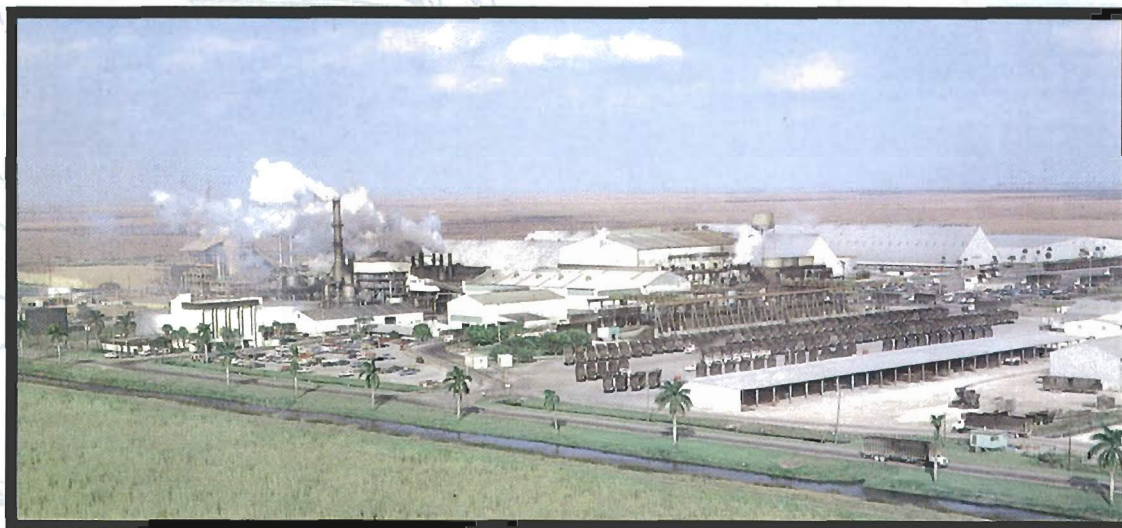


APPLICATION FOR RENEWAL OF TITLE V AIR OPERATION PERMIT SUGAR CANE GROWERS COOPERATIVE OF FLORIDA BELLE GLADE, FLORIDA



Prepared for:



JANUARY 2011

103-87692

Prepared by:





TRANSMITTAL

Date: 5/26/11 **Project No.:** 103-87692-0200
To: J. Koerner, P.E. **Company:** FDEP
From: D.Buff **Address:** Address 1
cc: Address 2
Email: City, ST Zip
RE: SCGC TITLE V RENEWAL APPLICATION AND RAI

RECEIVED
MAY 27 2011
BUREAU OF
AIR REGULATION

- Federal Express (priority, standard, 2-day, 3-day)
- UPS
- DHL
- Email _____
- U.S. Mail
- Courier
- Hand Delivery
- Other _____

Quantity	Item	Description
1	Final Bound	Permit Renewal Application
1	Copy	RAI Responses to FDEP, A. Satyal

Notes:

Please advise us if enclosures are not as described.

ACKNOWLEDGEMENT REQUIRED:

- Yes
- No

document2

Golder Associates Inc.
6026 NW 1st Place
Gainesville, FL 32607 USA
Tel: (352) 336-5600 Fax: (352) 336-6603 www.golder.com

APPLICATION FOR AIR PERMIT – LONG FORM



Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

RECEIVED

MAY 27 2011

BUREAU OF AIR REGULATION

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: Sugar Cane Growers Cooperative of Florida	
2. Site Name: Glades Sugar House	
3. Facility Identification Number: 0990026	
4. Facility Location...: Street Address or Other Locator: 1500 West Sugar House Road City: Belle Glade County: Palm Beach Zip Code: 33430-0666	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: Kathy Lockhart	
2. Application Contact Mailing Address... Organization/Firm: Sugar Cane Growers Cooperative of Florida Street Address: 1500 West Sugar House Road / P.O. Box 666 City: Belle Glade State: FL Zip Code: 33430-0666	
3. Application Contact Telephone Numbers... Telephone: (561) 996-4779 ext. Fax: (561) 996-4780	
4. Application Contact Email Address: kdlockhart@scgc.org	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s):	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is submitted to obtain: (Check one)

Air Construction Permit

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

The purpose of this application is to renew the Title V Air Operation Permit No. 0990026-012-AV, due to expire August 23, 2011.

With this concurrent Air Construction Permit Application, SCGCF is proposing to include additional coating materials to the Spray Booth Unit (EU ID No. 007) and to remove from the permitted list products that will not be used.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
001	Boiler No. 1		NA
002	Boiler No. 2		NA
003	Boiler No. 3		NA
004	Boiler No. 4		NA
005	Boiler No. 5		NA
006	Boiler No. 8		NA
007	Spray Booth		NA
	Facility-wide Unregulated		NA

Application Processing Fee

Check one: Attached - Amount: \$ _____ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

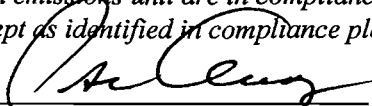
Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative Telephone Numbers... Telephone: () ext. Fax:
4. Owner/Authorized Representative Email Address:
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.</i> _____ Signature _____ Date

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: Jose F. Alvarez, Executive VP Operations & General Manager
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source or CAIR source.
3. Application Responsible Official Mailing Address... Organization/Firm: Sugar Cane Growers Cooperative of Florida Street Address: 1500 W. Sugarhouse Road/P. O. Box 666 City: Belle Glade State: FL Zip Code: 33430-0666
4. Application Responsible Official Telephone Numbers... Telephone: (561)-996-4759 Fax: (561)-996-4747
5. Application Responsible Official E-mail Address: jfalvarez@scgc.org
6. Application Responsible Official Certification: <i>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</i>  Signature 11/6/11 Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: David A. Buff Registration Number: 19011
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 6026 NW 1st Place City: Gainesville State: FL Zip Code: 32607
3. Professional Engineer Telephone Numbers... Telephone: (352) 336-5600 ext. 21145 Fax: (352) 336-6603
4. Professional Engineer Email Address: dbuff@golder.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input checked="" type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i> Signature: <u>David A. Buff</u> Date: <u>1/10/11</u> (seal)

Attach any exception to certification statement.

**Board of Professional Engineers Certificate of Authorization #00001670.

II. FACILITY INFORMATION
A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone 17 East (km) 534.9 North (km) 2,953.3		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) 26/42/06 Longitude (DD/MM/SS) 80/38/57	
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 20	6. Facility SIC(s): 2061
7. Facility Comment :			

Facility Contact

1. Facility Contact Name: Kathy Lockhart, Environmental Manager
2. Facility Contact Mailing Address... Organization/Firm: Sugar Cane Growers Cooperative of Florida Street Address: 1500 West Sugar House Road / P.O. Box 666 City: Belle Glade State: FL Zip Code: 33430-0666
3. Facility Contact Telephone Numbers: Telephone: (561) 996-4779 ext. Fax: (561) 996-4780
4. Facility Contact Email Address: kdlockhart@scgc.org

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: () - ext. Fax: () -
4. Facility Primary Responsible Official Email Address:

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a “major source” and a “synthetic minor source.”

1. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. <input type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:	

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
Sulfur Dioxide (SO2)	A	Y
Volatile Organic Compounds (VOC)	A	N
Particulate Matter (PM)	A	N
Particulate Matter (PM10)	A	N
Carbon Monoxide (CO)	A	N
Nitrogen Oxides (NOX)	A	N
Hydrochloric Acid (H106)	A	N
Methanol (H115)	A	N
Naphthalene (H132)	A	N
Polycyclic Organic Matter (H151)	A	N
Total HAPs (HAPS)	A	N

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>GSH-FI-C1</u> <input type="checkbox"/> Previously Submitted, Date: _____
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>GSH-FI-C2</u> <input type="checkbox"/> Previously Submitted, Date: _____
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>GSH-FI-C3</u> <input type="checkbox"/> Previously Submitted, Date: _____

Additional Requirements for Air Construction Permit Applications

1.	Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): <input type="checkbox"/> Attached, Document ID: _____
3.	Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: _____
4.	List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
10.	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units:
 Attached, Document ID: _____ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities (Required for initial/renewal applications only):
 Attached, Document ID: **GSH-FI-CV1** Not Applicable (revision application)
2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):
 Attached, Document ID: **GSH-FI-CV2**
 Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan (Required for all initial/revision/renewal applications):
 Attached, Document ID: **GSH-FI-CV3**
Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):
 Attached, Document ID: **GSH-FI-CV4**
 Equipment/Activities On site but Not Required to be Individually Listed
 Not Applicable
5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) :
 Attached, Document ID: _____ Not Applicable
6. Requested Changes to Current Title V Air Operation Permit:
 Attached, Document ID: **GSH-FI-CV6** Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid Rain Program Forms:

Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):

- Attached, Document ID: _____ Previously Submitted, Date: _____
 Not Applicable (not an Acid Rain source)

Phase II NO_x Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):

- Attached, Document ID: _____ Previously Submitted, Date: _____
 Not Applicable

New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):

- Attached, Document ID: _____ Previously Submitted, Date: _____
 Not Applicable

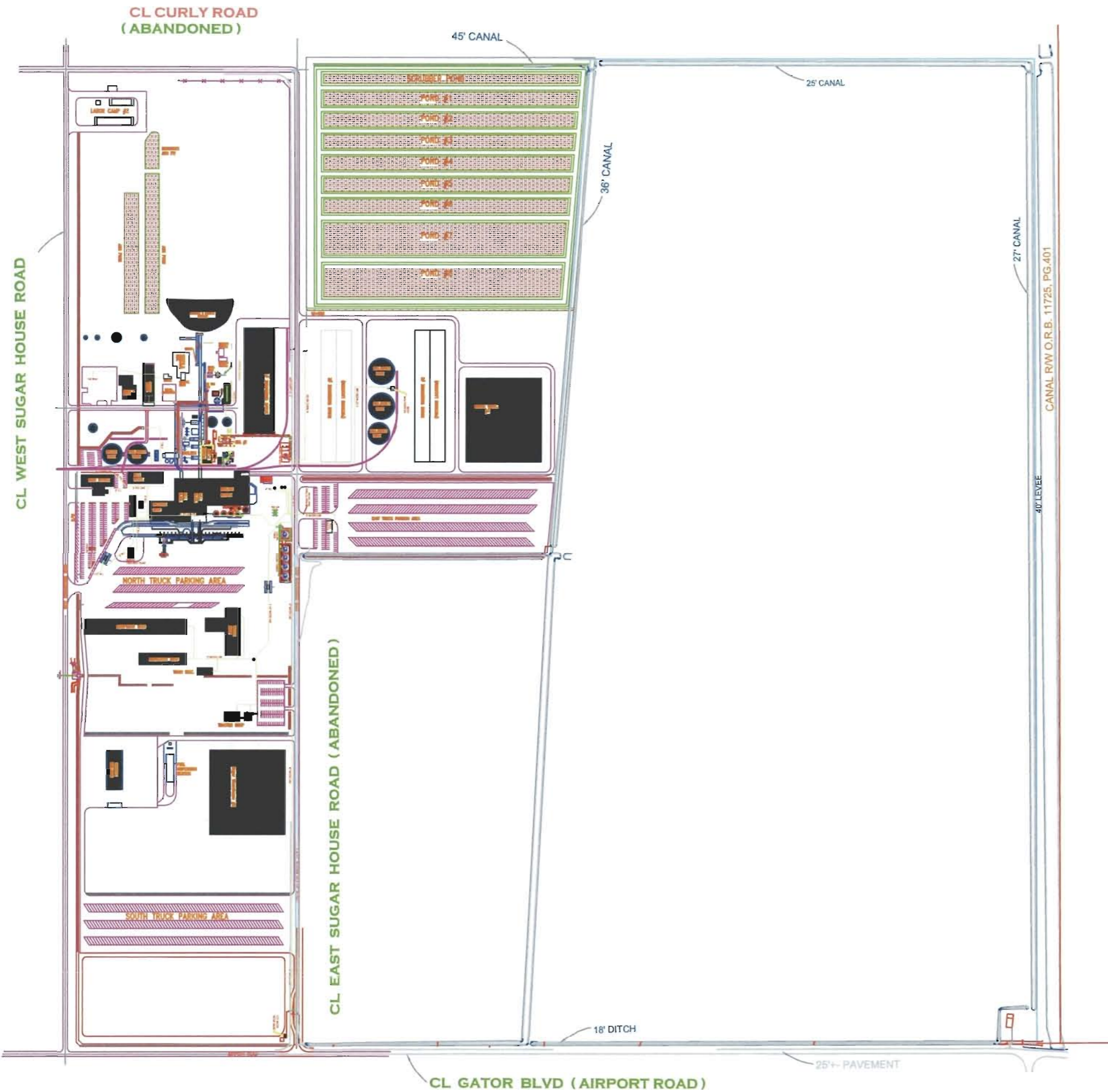
2. CAIR Part (DEP Form No. 62-210.900(1)(b)):

- Attached, Document ID: _____ Previously Submitted, Date: _____
 Not Applicable (not a CAIR source)

Additional Requirements Comment

ATTACHMENT GSH-FI-C1
FACILITY PLOT PLAN

Drawing file: 10387692_A001_PropBdry.dwg Jan 10, 2011 - 3:03pm



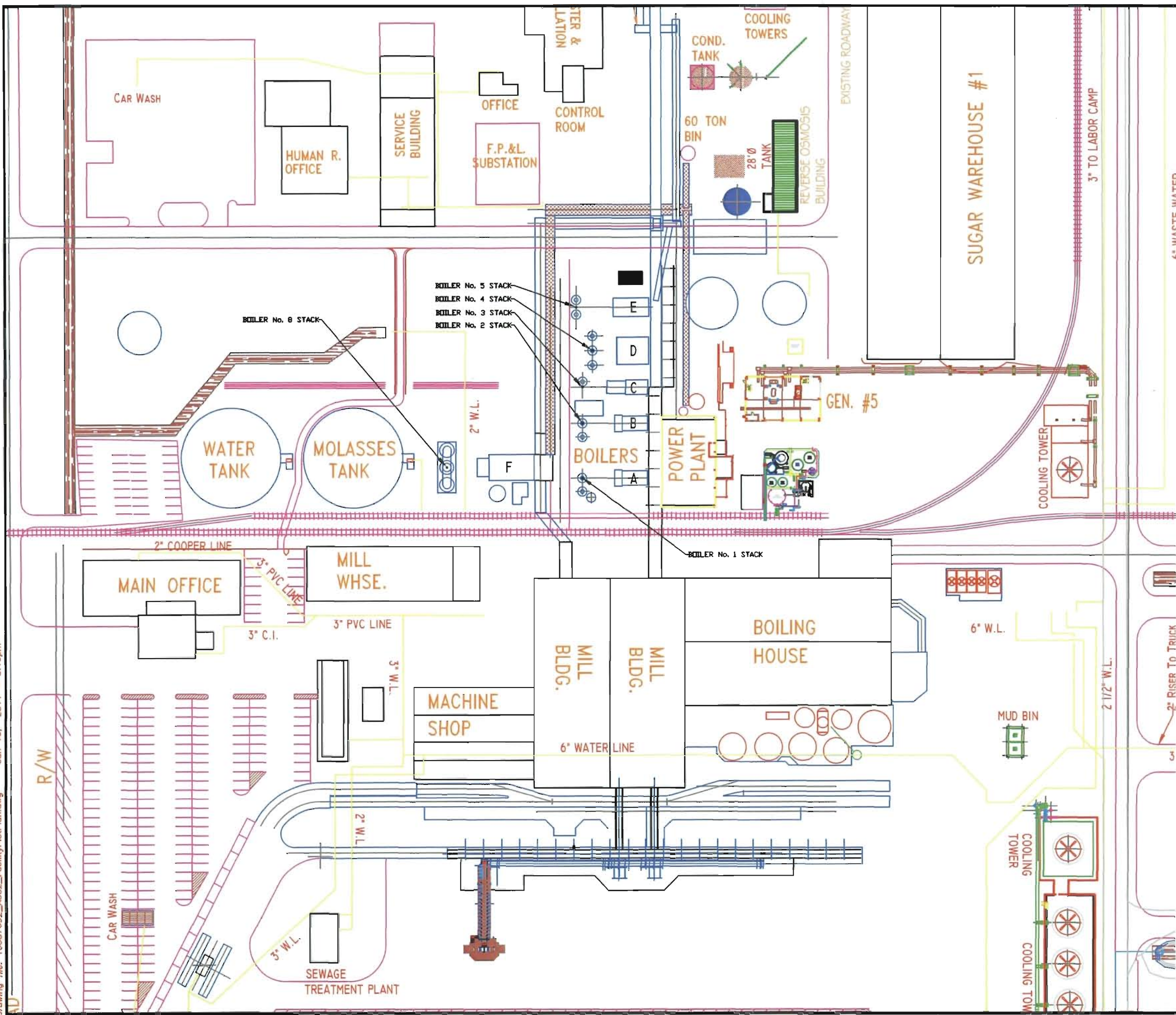
REFERENCES:
 BASE DRAWING CREATED BY SUGAR CANE GROWERS
 COOPERATIVE OF FLORIDA ENGINEERING DEPARTMENT BY R.
 MARENCO, DATED JANUARY 23, 2010, DRAWING No. 5678-ROMA.

REV	DATE	DES	REV_DESC	CADD	CHK	R/W
PROJECT						
SUGAR CANE GROWERS COOPERATIVE OF FLORIDA, GLADES SUGAR HOUSE						
TITLE						
PROPERTY BOUNDARY						
PROJECT No.		PROJECT_NO	FILE No.	FILE_NO		
DESIGN	DESIGN	DES_DATE	SCALE	SCALE	REV.	REV.
CADD	CADD	CAD_DATE				
CHECK	CHECK	CHK_DATE				
REVIEW	REVIEW	R/W_DATE				



**ATTACHMENT
GSH-FI-C1a**

Drawing file: 10387692_A002_FacilityPlotPlan.dwg Jan 10, 2011 - 3:10pm



- LEGEND**
- A = BOILER No. 1
 - B = BOILER No. 2
 - C = BOILER No. 3
 - D = BOILER No. 4
 - E = BOILER No. 5
 - F = BOILER No. 8

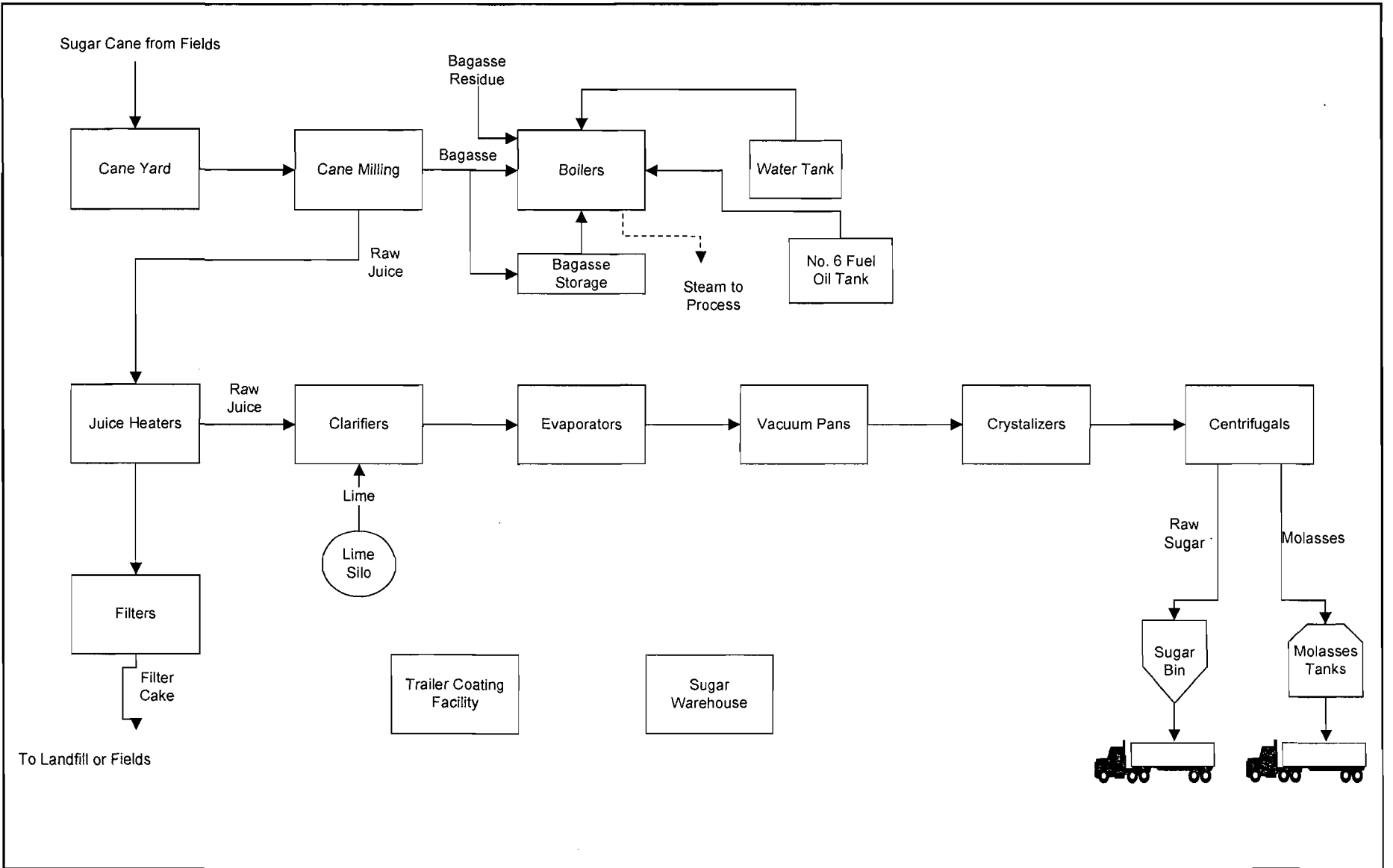


REFERENCES:
 BASE DRAWING CREATED BY SUGAR CANE GROWERS COOPERATIVE OF FLORIDA ENGINEERING DEPARTMENT BY R. MARENCO, DATED JANUARY 23, 2010, DRAWING No. 5678-ROMA.

REV	DATE	DES	REV_DESC	CADD	CHK	RVW
PROJECT						
SUGAR CANE GROWERS COOPERATIVE OF FLORIDA, GLADES SUGAR HOUSE						
TITLE						
FACILITY PLOT PLAN						
PROJECT No.		PROJECT_NO	FILE No.	FILE_NO		
DESIGN	DESIGN	DES_DATE	SCALE	SCALE	REV.	REV.
CADD	CADD	CADD_DATE				
CHECK	CHECK	CHK_DATE				
REVIEW	REVIEW	RVW_DATE				
ATTACHMENT GSH-FI-C1b						

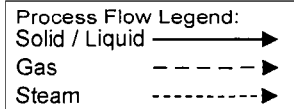


**ATTACHMENT GSH-FI-C2
PROCESS FLOW DIAGRAM**



Attachment GSH-FI-C2
 Process Flow Diagram
 Sugar Cane Growers Cooperative of Florida

Source: Golder, 2010.



ATTACHMENT GSH-FI-C3
PRECAUTIONS TO PREVENT EMISSIONS OF
UNCONFINED PARTICULATE MATTER

ATTACHMENT GSH-FI-C3

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

The sugar mill has the potential to emit unconfined particulate matter as a result of the operation of the sugar mill facility. Examples of fugitive particulate matter emissions include:

- Fugitive particulate matter from bagasse fuel storage and handling
- Fugitive particulate matter from bagacillo handling
- Fugitive dust from boiler ash removal and handling
- Fugitive particulate matter from cane handling operations
- Fugitive dust from paved and unpaved roads
- Lime handling

The following measures are undertaken at the sugar mill to minimize fugitive particulate matter emissions, in accordance with Rule 62-296.320(4)(c), F.A.C. These measures are described below:

- The use of covered conveyors on the bagasse fuel handling systems
- The use of enclosed material transfer points where feasible
- Minimization of the distance bagasse fuel is dropped during handling
- The use of windbreaks around the material handling equipment
- Daily removal of any dust forming material spilled within the area
- The use of water to control boiler ash dust during disposal
- Maintenance of paved areas as needed
- Use of baghouses (7) to control fugitive particulate matter emissions from the bagasse conveying system

ATTACHMENT GSH-FI-CV1
LIST OF INSIGNIFICANT ACTIVITIES

ATTACHMENT GSH-FI-CV1
LIST OF INSIGNIFICANT ACTIVITIES

<u>Emission Source</u>	<u>Process Area</u>
1. Bagacillo cyclones	Boiling House
2. Bagacillo handling system	Boiling House
3. Crystallizers	Boiling House
4. Can juice heater	Boiling House
5. Centrifugals with mixer	Boiling House
6. Clarified juice heater	Boiling House
7. Clarified juice tanks	Boiling House
8. Clarifier tanks	Boiling House
9. Coagulant mix tanks	Boiling House
10. Evaporator cleaning operations	Boiling House
11. Magma holding tanks	Boiling House
12. Molasses storage tanks	Boiling House
13. Mud filter condenser/vacuum pumps	Boiling House
14. Mud mix tanks	Boiling House
15. Mud waste tanks	Boiling House
16. Pan condensers/steam injectors	Boiling House
17. Rotary vacuum filters/coagulant tanks	Boiling House
18. Sugar receiver tanks	Boiling House
19. Syrup storage tanks	Boiling House
20. Vacuum pumps	Boiling House
21. Lime Silos	Boiling House
22. Molasses loadout surge tank	Cooling tower area
23. Agricultural shop operations	Agriculture shops
24. Harvester blade remanufacture station	Agriculture shops
25. Oil/water separator and holding tanks	Agriculture shops
26. Used oil storage tanks (small)	Agriculture shops
27. Boiler ash pit/handling	Boiler area
28. Boiler blowdown pipes/vents	Boiler area
29. Boiler water chemical prep tanks	Boiler area
30. Bunker C storage tanks	Boiler area
31. Deaerator	Boiler area
32. Painting of vehicles	Outdoors
33. Portable diesel air compressor (painting)	Outdoors
34. Used oil storage tanks	Facility-wide
35. Cooling water inlet screen	Cooling tower area

<u>Emission Source</u>	<u>Process Area</u>
36. Cold cleaning devices	Facility-wide
37. Containers for oils, wax, grease	Facility-wide
38. Electric ovens for drying	Facility-wide
39. Equipment for dust removal	Facility-wide
40. Portable Emergency generators (diesel)(2)	Facility-wide
41. Gear boxes, reducer vents	Facility-wide
42. Oil separators/skimmer equipment	Facility-wide
43. Process flanges and valves	Facility-wide
44. Portable diesel air compressors	Facility-wide
45. Portable welders	Facility-wide
46. Pressurized propane tanks	Facility-wide
47. Process water intake traveling screens	Facility-wide
48. Pump vents	Facility-wide
49. Scrubber water ponds	Facility-wide
50. Used oil tanks/drums (covered)	Facility-wide
51. Vacuum cleaning systems	Facility-wide
52. Vehicle-generated dust	Facility-wide
53. Vents from hydraulic/lube oil reservoirs	Facility-wide
54. Diesel fuel dispensers	Fueling facility
55. Gasoline dispensers	Fueling facility
56. Gasoline storage tanks	Fueling facility
57. Heavy truck diesel dispensers	Fueling facility
58. Hydraulic fluid storage tanks	Fueling facility
59. Kerosene storage tanks	Fueling facility
60. Lube oil storage tanks	Fueling facility
61. Oil/water separators	Fueling facility
62. Sewage treatment plant	Sewage treatment plant
63. Industrial water plant	Industrial water plant
64. Steam Turbine Electric generators	Power plant
65. Woodworking equipment (not vented)	Woodworking shop
66. North and South spray booths	
67. Bagasse handling system	Boiler area
68. Bagasse conveying system baghouses (7)	Boiler area

ATTACHMENT GSH-FI-CV2

IDENTIFICATION OF APPLICABLE REQUIREMENTS

ATTACHMENT GSH-FI-CV2
IDENTIFICATION OF APPLICABLE REQUIREMENTS
TITLE V CORE LIST

Effective: 03/01/02
 (Updated based on current version of FDEP Air Rules)

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal: (description)

40 CFR 61, Subpart M: NESHAP for Asbestos

40 CFR 82: Protection of Stratospheric Ozone

40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC)

40 CFR 82, Subpart F: Recycling and Emissions Reduction

40 CFR 98 Subpart A: Mandatory Reporting of Greenhouse Gases

40 CFR 98 Subpart C: General Stationary Combustion Sources

State: (description)

CHAPTER 62-4, F.A.C.: PERMITS, effective 03-16-08

62-4.030, F.A.C.: General Prohibition

62-4.040, F.A.C.: Exemptions

62-4.050, F.A.C.: Procedure to Obtain Permits; Application

62-4.060, F.A.C.: Consultation

62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial

62-4.080, F.A.C.: Modification of Permit Conditions

62-4.090, F.A.C.: Renewals

62-4.100, F.A.C.: Suspension and Revocation

62-4.110, F.A.C.: Financial Responsibility

62-4.120, F.A.C.: Transfer of Permits

62-4.130, F.A.C.: Transferability of Definitions

62-4.150, F.A.C.: Review

62-4.160, F.A.C.: Permit Conditions

62-4.210, F.A.C.: Construction Permits

62-4.220, F.A.C.: Operation Permit for New Sources

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 06-29-09

62-210.300, F.A.C.: Permits Required

62-210.300(1), F.A.C.: Air Construction Permits

62-210.300(2), F.A.C.: Air Operation Permits

62-210.300(3), F.A.C.: Exemptions

62-210.300(5), F.A.C.: Notification of Startup

62-210.300(6), F.A.C.: Emissions Unit Reclassification

62-210.300(7), F.A.C.: Transfer of Air Permits

62-210.350, F.A.C.: Public Notice and Comment

62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action

62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review

62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources

62-210.360, F.A.C.: Administrative Permit Corrections
62-210.370, F.A.C.: Emissions Computation and Reporting
62-210.400, F.A.C.: Emission Estimates
62-210.650, F.A.C.: Circumvention
62-210.700, F.A.C.: Excess Emissions

62-210.900, F.A.C.: Forms and Instructions
62-210.900(1), F.A.C.: Application for Air Permit – Title V Source, Form and Instructions
62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions
62-210.900(7), F.A.C.: Application for Transfer of Air Permit – Title V and Non-Title V Source

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES - PRECONSTRUCTION REVIEW, effective 06-29-09

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 10-12-08

62-213.205, F.A.C.: Annual Emissions Fee
62-213.400, F.A.C.: Permits and Permit Revisions Required
62-213.410, F.A.C.: Changes Without Permit Revision
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process
62-213.415, F.A.C.: Trading of Emissions Within a Source
62-213.420, F.A.C.: Permit Applications
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision
62-213.440, F.A.C.: Permit Content
62-213.450, F.A.C.: Permit Review by EPA and Affected States
62-213.460, F.A.C.: Permit Shield

62-213.900, F.A.C.: Forms and Instructions
62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form
62-213.900(7), F.A.C.: Statement of Compliance Form

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 10-06-08

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter

62-296.320(2), F.A.C.: Objectionable Odor Prohibited

CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 2-12-04

62-297.310, F.A.C.: General Test Requirements
62-297.310(4), F.A.C.: Applicable Test Procedures
62-297.310(7), F.A.C.: Frequency of Compliance Tests
62-297.310(6), F.A.C.: Repaired Stack Sampling Facilities
62-297.310(5), F.A.C.: Determination of Process Variables
62-297.510(8), F.A.C.: Test Report
62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements

Miscellaneous:

CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests

CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07-01-98

CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 10-06-08

CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 10-12-08

CHAPTER 62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling, effective 09-10-96



**ATTACHMENT GSH-FI-CV3
COMPLIANCE REPORT AND PLAN**

**ATTACHMENT GSH-FI-CV3A
COMPLIANCE REPORT AND PLAN**

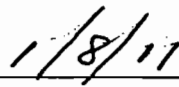
Sugar Cane Growers Cooperative of Florida certifies that the Glades Sugar House mill in Belle Glade, Florida, as of the date of this application, is in compliance with each applicable requirement addressed in this Title V air permit renewal application, except those items identified in the attached compliance plan.

I, the undersigned, am the responsible official as designed in Chapter 62-213, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete.

Compliance statements for this facility will be submitted on an annual basis to FDEP, on or before April 1 of each year.



Signature, Responsible Official



Date

ATTACHMENT GSH -FI-CV3b COMPLIANCE PLAN

I. Emissions Unit 006 - Boiler No. 8: Steam Production Exceedances

A. Deviations from Applicable Requirements

Specific Condition F.1.1 of the current Title V Air Operation Permit (Permit No. 0990026-012-AV) limits the maximum steam production for Boiler No. 8 to 264,000 pounds per hour (lb/hr) of steam (24-hour average). Review of steam records for Boiler No. 8 for calendar year 2010 revealed that the permitted steam capacity has been exceeded on 16 occasions in 2010. The table below lists the specific exceedances:

Date	Steam Rate (lb/hr)
1/5/2010	265,625
1/14/2010	269,458
1/15/2010	265,208
1/16/2010	267,875
1/18/2010	266,083
1/21/2010	266,542
1/22/2010	265,917
1/23/2010	269,500
1/24/2010	267,083
1/26/2010	269,042
1/27/2010	272,000
1/29/2010	269,583
1/31/2010	271,000
2/8/2010	264,667
11/2/2010	266,083
12/31/2010	265,250

B. Compliance Plan

SCGCF is continuing to investigate these steam rate exceedances, including the calculation of actual boiler heat input during these events. Additional information will be provided to the Department in the near future. SCGCF will avoid future exceedances by implementing the following:

- 1) Maintain 24 hour total steam production to no more than 6,336,000 pounds steam
- 2) Institute immediate boiler operator training sessions to avoid future failures to comply with this requirement

- 3) The site Environmental Manager will conduct weekly review of the steam production data to insure compliance
- 4) SCGCF will report all excursions on a semi-annual basis to the compliance authority

II. Emissions Unit 006 - Boiler No. 8: Boiler Flue Gas Oxygen Level

A. Deviations from Applicable Requirements

Specific Condition F.15 of current permit no. 0990026-012-AV reads as follows:

The permittee shall install, maintain, and operate an alarm system on Boiler 8 that will be triggered whenever the boiler oxygen level drops below 4 percent. The time the boiler operates with less than 4 percent oxygen shall be logged and may be used as a basis to modify the operation and maintenance plan. The permittee shall use the Operation and Maintenance Plan (Revised February 1, 1996) for carbon monoxide control in Boiler No. 8.

Review of boiler operating logs for Boiler No. 8 for calendar year 2010 revealed that the boiler oxygen level at times fell below 4 percent, however, the time that the boiler operated at less than 4 percent oxygen was not logged.

B. Compliance Plan

SCGCF will immediately comply with the requirements by implementing the following:

- 1) Institute immediate boiler operator training sessions to avoid future failures to comply with this requirement
- 2) SCGCF will insure a log book is visible and available to boiler operators at all times in the boiler control room
- 3) The site Environmental Manager will conduct weekly review of the logs to insure proper completion of the log book
- 4) SCGCF will report all excursions on a semi-annual basis to the compliance authority

III. Emission Unit 007 – Spray Booth: Usage of New Products

A. Deviations from Applicable Requirements

Specific Conditions G.1 and G.5 of the current Title V Air Operation Permit (Permit No. 0990026-012-AV) limit the use of surface coatings to Zophar, xylol, Bunker C oil, Sherwin-Williams B66B11, and Sherwin-Williams Alkyd Enamel. However, the facility recently began using MCM Gloss Black Latex and MCM Black Enamel in the spray booth. Also, Bunker C and Zophar have been eliminated, and xylol has been replaced with a reducer. However, the VOC emission limit of 50 lb/hr or 24 tons per year was not exceeded.

B. Compliance Plan

Through this concurrent air construction permit application/Title V renewal application, SCGCF is requesting that MCM Gloss Black Latex, MCM Black Enamel, and Dimension Reducer be included in the list of permitted surface coatings and solvents used in the spray booth. Bunker C, xylol, and Zophar can be removed from the permit. The VOC emission limit of 50 lb/hr or 24 tons per year and the maximum process throughput rate will not be exceeded with these new coatings.

IV. Facility Wide –Sporadic Pressure Drop Excursions (CAM Plan)**A. Deviations from Applicable Requirements**

Based on permit no. 0990026-012-AV and the approved Compliance Assurance Monitoring (CAM) Plan No. 0537527 dated February 2006, the total pressure drop across each scrubber must be monitored and readings must be logged every 8 hours while the boilers are in operation. Excursions are defined as any individual pressure drop below the specific minimum pressure drop values. The indicator values vary for each boiler, and are stated in the CAM Plan. Excursions trigger corrective action and reporting. However, excursions were not previously reported. The attached Table CV3 below lists the excursions recorded over the last four years and the dates on which the excursions were recorded.

B. Compliance Plan

SCGCF will immediately comply with the requirements by implementing the following:

- 1) Institute immediate boiler operator training sessions to avoid future failures to comply with this requirement
- 2) SCGCF will insure the scrubber parameters log book is visible and available to boiler operators at all times in the boiler control room
- 3) The scrubber parameters log book will clearly indicate the information required to be completed for each excursion event
- 4) The site Environmental Manager will conduct weekly review of the logs to insure proper completion of the log book
- 5) SCGCF will report all excursions on a semi-annual basis to the compliance authority

Table CV3: Excusions of Minimum Scrubber Pressure Drop

Date	Scrubber 1	Scrubber 2	Scrubber 3	Scrubber 4N	Scrubber 4S	Scrubber 5N	Scrubber 5S	Scrubber 8N	Scrubber 8S
11/4/2007									X
12/5/2007									X
12/11/2007									X
10/26/2008	X								
10/27/2008	X								
10/30/2008									X
10/31/2008								X	X
11/1/2008								X	X
11/2/2008	X								X
11/4/2008								X	X
11/5/2008								X	X
11/7/2008								X	X
11/8/2008								X	X
11/9/2008								X	X
11/10/2008								X	X
11/11/2008								X	X
11/12/2008								X	X
11/13/2008									X
11/14/2008									X
11/15/2008								X	X
11/16/2008	X							X	X
11/17/2008								X	X
11/18/2008	X							X	X
11/19/2008	X							X	X
11/20/2008	X							X	X
11/21/2008	X							X	X
11/22/2008	X							X	
11/24/2008								X	
11/25/2008	X							X	X
11/26/2008	X		X					X	X
11/27/2008	X							X	X
11/28/2008	X							X	
11/29/2008	X							X	
11/30/2008	X							X	X
12/1/2008	X							X	X
12/2/2008	X							X	X
12/3/2008	X							X	
12/4/2008	X							X	X
12/5/2008	X								X
12/6/2008	X							X	X
12/7/2008	X							X	X
12/8/2008	X							X	X
12/10/2008	X								
12/11/2008	X							X	X
12/12/2008	X								X
12/13/2008	X								
12/14/2008	X								X
12/15/2008	X								
12/16/2008	X								X
12/17/2008	X								



Table CV3: Excusions of Minimum Scrubber Pressure Drop

Date	Scrubber 1	Scrubber 2	Scrubber 3	Scrubber 4N	Scrubber 4S	Scrubber 5N	Scrubber 5S	Scrubber 8N	Scrubber 8S
12/18/2008	X								X
12/19/2008	X								
12/20/2008	X								
12/21/2008	X								
12/23/2008	X								X
12/24/2008	X								
12/26/2008	X								X
12/27/2008	X								X
12/28/2008									X
12/29/2008	X							X	X
12/30/2008	X					X			X
12/31/2008								X	X
1/1/2009	X								X
1/2/2009	X								X
1/3/2009									X
1/5/2009									X
1/6/2009									X
1/7/2009	X								X
1/8/2009	X								X
1/9/2009	X					X			X
1/10/2009	X								
1/11/2009	X								X
1/12/2009	X					X			X
1/13/2009	X								X
1/14/2009	X								
1/15/2009	X								
1/16/2009	X								
1/17/2009	X								
1/18/2009	X								X
1/19/2009	X								X
1/20/2009	X								X
1/21/2009	X								
1/22/2009	X								
1/23/2009	X								
1/24/2009	X								
1/25/2009	X								
1/26/2009	X								
1/27/2009	X								
1/28/2009	X								
1/29/2009	X								
1/30/2009	X								X
1/31/2009	X								
2/1/2009	X								
2/2/2009	X								
2/3/2009	X								
2/4/2009	X								X
2/5/2009	X								X
2/6/2009	X								
2/7/2009	X								
2/8/2009	X								
2/9/2009	X								



Table CV3: Excusions of Minimum Scrubber Pressure Drop

Date	Scrubber 1	Scrubber 2	Scrubber 3	Scrubber 4N	Scrubber 4S	Scrubber 5N	Scrubber 5S	Scrubber 8N	Scrubber 8S
2/10/2009	X								
2/11/2009	X								
2/12/2009	X								
2/13/2009	X								
2/14/2009	X								
2/15/2009	X								X
2/16/2009	X								
2/18/2009	X								
2/19/2009	X							X	
2/20/2009	X							X	
2/21/2009	X								
2/22/2009	X								
10/22/2009	X								
10/23/2009	X					X			
10/24/2009	X					X	X		
10/25/2009	X	X				X	X		
10/26/2009	X								
10/27/2009	X							X	X
10/28/2009	X							X	X
10/29/2009		X						X	X
10/30/2009	X		X					X	X
10/31/2009	X		X					X	X
11/1/2009	X		X					X	X
11/2/2009	X		X					X	X
11/3/2009	X		X					X	X
11/4/2009	X							X	X
11/5/2009	X								X
11/6/2009	X								X
11/7/2009	X								X
11/8/2009	X								X
11/9/2009	X								X
11/10/2009	X								X
11/11/2009	X							X	X
11/12/2009	X							X	X
11/13/2009	X							X	X
11/14/2009	X								X
11/15/2009	X								X
11/16/2009	X								X
11/17/2009	X								X
11/18/2009	X								X
11/19/2009	X								X
11/20/2009	X								X
11/21/2009	X								X
11/22/2009	X								
11/23/2009	X								
11/24/2009	X								
11/25/2009	X	X							
11/26/2009		X	X						X
11/27/2009	X	X						X	X
11/28/2009	X								X
11/29/2009	X								



Table CV3: Excusions of Minimum Scrubber Pressure Drop

Date	Scrubber 1	Scrubber 2	Scrubber 3	Scrubber 4N	Scrubber 4S	Scrubber 5N	Scrubber 5S	Scrubber 8N	Scrubber 8S
11/30/2009		X							X
12/1/2009	X								X
12/2/2009	X								X
12/3/2009	X								
12/4/2009	X								X
12/5/2009	X	X					X		X
12/6/2009	X								X
12/7/2009	X	X							X
12/8/2009	X								X
12/9/2009	X								X
12/10/2009	X	X							X
12/11/2009	X								X
12/12/2009	X								X
12/13/2009	X								X
12/14/2009	X							X	X
12/15/2009	X								X
12/16/2009	X	X							
12/17/2009	X								X
12/18/2009							X		
12/20/2009	X			X					
12/21/2009	X								X
12/22/2009	X								X
12/23/2009	X								
12/24/2009		X							
12/26/2009	X	X							X
12/27/2009									X
12/28/2009	X								X
12/29/2009		X						X	X
12/30/2009									X
12/31/2009									X
1/1/2010								X	X
1/2/2010		X	X					X	X
1/3/2010		X	X					X	X
1/4/2010		X	X					X	X
1/5/2010		X	X					X	X
1/6/2010		X	X					X	X
1/7/2010		X	X					X	X
1/8/2010		X	X					X	X
1/9/2010		X						X	X
1/10/2010		X	X				X	X	X
1/11/2010		X	X					X	X
1/12/2010		X	X					X	X
1/13/2010		X	X					X	
1/14/2010			X					X	
1/15/2010									X
1/16/2010			X						X
1/17/2010	X	X	X					X	X
1/18/2010		X	X					X	X
1/19/2010		X	X					X	X
1/20/2010			X					X	X
1/21/2010			X					X	X



Table CV3: Excusions of Minimum Scrubber Pressure Drop

Date	Scrubber 1	Scrubber 2	Scrubber 3	Scrubber 4N	Scrubber 4S	Scrubber 5N	Scrubber 5S	Scrubber 8N	Scrubber 8S
1/22/2010		X	X					X	X
1/23/2010			X						X
1/24/2010			X					X	X
1/25/2010		X	X					X	X
1/26/2010		X						X	X
1/27/2010		X						X	
1/28/2010		X						X	X
1/29/2010		X						X	X
1/30/2010								X	X
1/31/2010		X						X	
2/1/2010		X					X	X	
2/2/2010		X							
2/3/2010		X						X	X
2/4/2010								X	X
2/5/2010							X	X	X
2/6/2010		X			X			X	X
2/7/2010		X						X	X
2/8/2010								X	X
2/9/2010								X	X
2/10/2010								X	X
2/11/2010								X	X
2/12/2010								X	X
2/13/2010								X	X
2/14/2010								X	X
2/15/2010								X	X
2/16/2010								X	X
2/17/2010								X	X
2/18/2010								X	X
2/19/2010								X	X
2/20/2010								X	X
2/21/2010									X
2/22/2010									X
2/23/2010								X	X
2/24/2010								X	X
2/25/2010								X	X
2/26/2010								X	X
2/27/2010								X	X
2/28/2010								X	X
3/1/2010								X	X
3/3/2010								X	X
3/4/2010								X	X
3/5/2010								X	X
3/6/2010								X	X
3/7/2010								X	X
10/21/2010					X				
10/22/2010		X			X				
10/23/2010					X				
10/24/2010		X			X				
10/25/2010					X				
10/27/2010			X			X	X	X	X
10/28/2010			X			X	X	X	X



Table CV3: Excursions of Minimum Scrubber Pressure Drop

Date	Scrubber 1	Scrubber 2	Scrubber 3	Scrubber 4N	Scrubber 4S	Scrubber 5N	Scrubber 5S	Scrubber 8N	Scrubber 8S
10/29/2010			X			X	X	X	X
10/30/2010			X				X		X
10/31/2010			X				X		X
11/1/2010			X				X		
11/2/2010									X
11/4/2010									X
11/5/2010	X	X							X
11/6/2010		X					X		X
11/7/2010		X	X				X	X	X
11/8/2010		X							
11/9/2010		X							X
11/10/2010		X		X					X
11/11/2010		X		X					X
11/12/2010	X	X							X
11/13/2010		X							X
11/14/2010		X							
11/16/2010									X
11/17/2010	X								X
11/18/2010		X							X
11/22/2010	X								X
11/23/2010		X							X
11/24/2010									X
11/25/2010									X
11/26/2010				X					X
11/27/2010		X		X					X
11/28/2010		X		X					X
11/29/2010					X				X
11/30/2010									X
12/1/2010		X						X	X
12/2/2010		X						X	X
12/3/2010								X	X
12/4/2010								X	X
12/5/2010								X	X
12/6/2010								X	X
12/7/2010								X	X
12/8/2010								X	X
12/9/2010								X	X
12/10/2010								X	X
12/11/2010									X
12/12/2010								X	X
12/13/2010								X	X
12/14/2010								X	X
12/15/2010								X	X
12/16/2010									X
12/17/2010									X
12/18/2010		X							X
12/19/2010									X
12/20/2010								X	X
12/21/2010									X
12/22/2010									X
12/23/2010									X



Table CV3: Excusions of Minimum Scrubber Pressure Drop

Date	Scrubber 1	Scrubber 2	Scrubber 3	Scrubber 4N	Scrubber 4S	Scrubber 5N	Scrubber 5S	Scrubber 8N	Scrubber 8S
12/24/2010	X								
12/25/2010	X								X
12/26/2010	X							X	X
12/27/2010								X	X
12/28/2010								X	X

ATTACHMENT GSH-FI-CV4

LIST OF EQUIPMENT REGULATED UNDER TITLE VI

ATTACHMENT GSH-FI-CV4
LIST OF EQUIPMENT REGULATED UNDER TITLE VI

Air Conditioning Unit	Charge Type	Amount of Charge per Circuit
Main Office #1	R-22	65 lbs
Main Office #2	R-22	65 lbs
Power Plant #1	134A	112 lbs
Power Plant #2	134A	89 lbs

ATTACHMENT GSH-FI-CV6

**REQUESTED CHANGES TO CURRENT TITLE V
AIR OPERATION PERMIT**

ATTACHMENT GSH-FI-CV6**REQUESTED CHANGES TO CURRENT TITLE V OPERATION PERMIT**

Sugar Cane Growers Cooperative of Florida (SCGCF) requests changes and clarifications to the specific conditions contained in Title V Permit No. 0990026-012-AV. These are described below. It is also requested that these changes be incorporated into draft Title V Permit No. 0990026-015-AV.

I. Compliance with Facility-Wide SO₂ Emissions Limit

The SCGCF facility is subject to a facility-wide SO₂ emission limit of 14 tons per day, per condition H.2 of Subsection H of the Title V permit. This condition reads as follows:

H.2. Facility Wide SO₂ Emissions Limit - The total emissions of SO₂ from all operating boilers shall not exceed 14 tons per day.

[Rule 62-212.400, F.A.C., (Prevention of Significant Deterioration (PSD) and Construction Permit AC50-42476\PSD-FL-077 dated 10/28/81) [Construction Permit Application - September 22, 2005]

Compliance with this condition is demonstrated per Conditions H.2.1 and H.2.2, which read as follows:

H.2.1. Fuel oil from the common storage tank to boilers 1, 2, 3, 4, and 5 shall be recorded every 8 hours and the total for the day shall be used in the scheme in Specific Condition H.2.2. to compute the total gallons of fuel oil burned facility wide and the total SO₂ emitted for the day.

[Rule 62-212.400, F.A.C., (Prevention of Significant Deterioration (PSD) and Construction Permit AC50-42476\PSD-FL-077 dated 10/28/81)

H.2.2. The permittee shall meter daily oil consumption by Unit 8 individually. The total quantity of fuel oil consumed on a daily basis by Unit 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). Record shall be retained for five years. The balance of the oil in the system should not exceed 2.4% sulfur. For the purpose of simplicity, the fuel purchase scheme above will be in compliance when the total plant wide fuel oil consumption does not exceed 31,500 gallons per day. In the event that the daily consumption of oil exceeds 31,500 gallons, the 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 content of the oil for each day shall be substituted for the 1.15% value.*

*{*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 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 shall be adjusted accordingly.}*

[Construction Permit AC50-42476\PSD-FL-077 dated 10/28/81]

To calculate daily SO₂ emissions and demonstrate compliance with the 14 tons per day limit, SCGCF uses the following scheme and equations:

Boilers 1-5

Fuel Oil: Total gallons/day x 8.0 lb/gal x S content/100 x 2 lb SO₂/lb S x ton/2000 lb = SO₂ tons/day

Bagasse: Total bagasse tons/day x 0.2%/100 x (1-0.40) = SO₂ tons/day

Residue: Total residue tons/day x 0.5%/100 x (1-0.40) = SO₂ tons/day

Total SO₂ = Fuel oil SO₂ + Bagasse SO₂ + Residue SO₂

Boiler 8

Fuel Oil: gallons/day x 8.0 lb/gal x S content/100 x 2 lb SO₂/lb S x ton/2000 lb = SO₂ tons/day

Bagasse: bagasse tons/day x 0.2%/100 x (1-0.40) = SO₂ tons/day

Residue: residue tons/day x 0.5%/100 x (1-0.40) = SO₂ tons/day

Total SO₂ = Fuel oil SO₂ + Bagasse SO₂ + Residue SO₂

SCGCF requests to modify the current SO₂ calculation scheme to utilize a single sulfur content for all boilers and the total fuel consumption for all the boilers combined. SCGCF also requests the simplification of the fuel oil purchase scheme by agreeing to purchase all fuel oil for the boilers as fuel oil with a 2.12 percent maximum sulfur content. According to SCGCF's fuel use reports for the past 5 years, the percent of fuel burned in Boiler No. 8 (which is assumed to be 1% S fuel) was as follows:

YEAR	PERCENT OF TOTAL FUEL BURNED IN BOILER #8	FUEL BURNED IN BOILER #8	TOTAL FUEL OIL BURNED IN BOILERS #1, 2, 3, 4, 5, AND 8
2006	13.54	49,853	368,131
2007	14.60	77,437	530,547
2008	8.08	38,090	471,600
2009	11.95	66,443	556,030
2010	13.37	68,582	513,073

Using a conservative value of 20 percent of the fuel oil purchased to be 1.0% sulfur (maximum), with the remainder as 2.4% sulfur fuel, a weighted average sulfur content for calculation purposes can be derived as follows:

$$(2.4\% \text{ S} \times 80\%) + (1.0\% \text{ S} \times 0.20) = 2.12\% \text{ S}$$

Therefore, utilizing 2.12% sulfur fuel in the common fuel oil system would result in lower overall SO₂ emissions than based on the current scheme. Based on these conservative assumptions, SCGCF requests that the above language be revised as follows:

H.2.1. *The total fuel oil from the common storage tank to boilers 1, 2, 3, 4, 5 and 8 shall be recorded every 8 hours and the total for the day shall be used in the scheme in Specific Condition H.2.2. to compute the total gallons of fuel oil burned facility wide and the total SO₂ emitted for the day.*

H.2.2. *All fuel oil purchased for the common fuel oil system shall not exceed 2.12%. The permittee must demonstrate compliance with the 14 ton per day limit by recording the amounts of bagasse, residue, and oil combusted, and the sulfur content of the oil for each such day.**

*{*The SO₂ calculations shall be based upon the assumptions that the bagasse, residue and oil sulfur contents are 0.2%, 0.5% and 2.12%, respectively, and also SO₂ emissions from bagasse and residue are 40% below the amounts calculated stoichiometrically and all sulfur in fuel oil is emitted as SO₂.}*

The mill-wide SO₂ calculation scheme then becomes as follows:

Boiler 1-8

Total Fuel Oil: gallons/day x 8.0 lb/gal x 2.12/100 x 2 lb SO₂/lb S x ton/2000 lb = SO₂ tons/day

Bagasse: bagasse tons/day x 0.2%/100 x (1-0.40) = SO₂ tons/day

Residue: residue tons/day x 0.5%/100 x (1-0.40) = SO₂ tons/day

Total SO₂ = Fuel oil SO₂ + Bagasse SO₂ + Residue SO₂

III. Changes to Specific Condition Related to Scrubber Inlet Water Pressure

Specific Condition B.13 reads as follows:

The scrubber control system shall be equipped with instrumentation to monitor total pressure drop and inlet water pressure. Such instrumentation shall be properly maintained so as to be functional at all times. Instrumentation and monitoring is to be in accordance with approved Compliance Assurance Monitoring Plan (CAM PLAN) 0537527 dated February 2006.

[Rule 62-4.070(3), F.A.C.]

Similarly, Specific Conditions C.13, C.14, D.13, E.13, F13.3, and F.14, all relate to monitoring of inlet water pressure to the scrubbers. SCGC requests that the inlet water pressure be removed from these conditions due to its inconsistency with the CAM Plan. The CAM Plan does not require the monitoring of inlet water pressure.

III. Changes in Coating Materials Used in Spray Booth

Through this concurrent air construction permit application, SCGCF is requesting a change to Specific Conditions G.1. and G.5 for the volatile organic compounds and solvents currently used in the spray booth. The conditions currently read as follows:

G.1. Methods of Operation - Three petroleum based materials are used and two water based coatings.

Xylol: 5% ethylbenzene (CASRN 100-41-4), 95% xylene (CASRN 1330-20-7); @ 24.0 Tons Per Year.

Bunker C: catalytically cracked clarified oil; @ 24.0 Tons Per Year.

Zophar: 35% coal tar naphtha, 65% refined coal tar pitch. @ 60.0 Tons Per Year

DTM Acrylic Gloss: 0.69 pounds of VOC per gallon, (non HAPs)

Alkyd Enamel (Sherman-Williams Co.) 4.6 pounds of VOC per gallon, (non HAPs) @ 42.1 Tons Per Year.

G.5. Only the following volatile organic compounds and solvents may be used in the spray booth: zophar, xylol, Bunker C oil, Sherwin-Williams B66B11, and Sherwin-Williams Alkyd Enamel.

[Amendment to AO50-222810 dated 03/12/96 and letter of April 30, 1998]

SCGC requests that MCM Black Enamel (non soluble in water), MCM Gloss Black Latex (water soluble), and Dimension Reducer be added to the list of allowable products to be used in the spray booth. Additional product information can be found in Emissions Unit Section 7 – Spray Booth. The Dimension Reducer will replace the Xylol and the Bunker C and Zophar are no longer used. SCGC would like to remove these three products from the list of permitted materials. Total VOC emissions from this emission unit will not exceed 50 lb/hr or 24 tons per year due to this action.

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 1

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate *Emissions Unit Information Section* (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 1

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Description of Emissions Unit Addressed in this Section: Boiler No. 1			
3. Emissions Unit Identification Number: 001			
4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20
8. Federal Program Applicability: (Check all that apply)			
<input type="checkbox"/> Acid Rain Unit			
<input type="checkbox"/> CAIR Unit			
9. Package Unit: Manufacturer:		Model Number:	
10. Generator Nameplate Rating: MW			
11. Emissions Unit Comment: This boiler has a water-cooled, pin-hole, traveling grate, and is fired by bagasse, residue, and fuel oil. This emission unit produces steam for use in the production of raw sugar.			

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 1

Emissions Unit Control Equipment/Method: Control 1 of 2

1. Control Equipment/Method Description: Multiple Cyclone Dust Collector
2. Control Device or Method Code: 121

Emissions Unit Control Equipment/Method: Control 2 of 2

1. Control Equipment/Method Description: Impingement Type Wet Scrubber
2. Control Device or Method Code: 115

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 1

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:		
2. Maximum Production Rate: 139,700 lb/hr steam (24-hour average)		
3. Maximum Heat Input Rate: 266.7 million Btu/hr (24-hour average)		
4. Maximum Incineration Rate:	pounds/hr	
	tons/day	
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	44 weeks/year	7,296 hours/year
6. Operating Capacity/Schedule Comment:		
<p>The maximum rates are based on a 24-hour average. Maximum heat input based on burning bagasse. The maximum 24-hour average heat input rate from residue is 234.7 MMBtu/hr, and the maximum heat input rate from fuel oil is 229.7 MMBtu/hr. Boiler operating pressure and temperature: 400 psig, 585°F. See Attachment GSH-EU1-B6.</p> <p>Maximum operating time during the off-season (April 16-October 12) is 120 days with only three boilers of Boiler Nos. 1, 2, 4, 5, and 8 operating at a time.</p>		

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 1

**C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)**

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: A (Boiler No. 1)		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 150 feet	7. Exit Diameter: 7.0 feet	
8. Exit Temperature: 161 °F	9. Actual Volumetric Flow Rate: 99,895 acfm	10. Water Vapor: 32 %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Stack parameters based on December 2009 stack test.			

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 1

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Bagasse		
2. Source Classification Code (SCC): 1-02-011-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 20,881	5. Maximum Annual Rate: 121,615	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.08, dry	8. Maximum % Ash: 2.6, dry	9. Million Btu per SCC Unit: 16
10. Segment Comment: Tons burned on dry basis, based on 334.1 MMBtu/hr (1-hr average) and a heating value of 8,000 Btu/lb (dry) for bagasse. Maximum annual rate based on 266.7 MMBtu/hr (24-hr average).		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Solid Waste: Residue		
2. Source Classification Code (SCC): 1-02-012-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 16,517	5. Maximum Annual Rate: 96,201	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.6, dry	8. Maximum % Ash: 8.0, dry	9. Million Btu per SCC Unit: 17.8
10. Segment Comment: Tons burned on dry basis, based on 294.0 MMBtu/hr (1-hr average) and a heating value of 8,900 Btu/lb (dry) for bagasse residue. Maximum annual rate based on 234.7 MMBtu/hr (24-hr average).		

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 1

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)**Segment Description and Rate:** Segment 3 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Residual Oil: Grade 6 Oil		
2. Source Classification Code (SCC): 1-02-004-01		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 1.521	5. Maximum Annual Rate: 11,100	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 2.40	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: Based on 229.7 MMBtu/hr (24-hr average) and heating value of 151,000 Btu/gal for No. 6 fuel oil.		

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Liquid Waste: Waste Oil		
2. Source Classification Code (SCC): 1-02-013-02		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 0.04	5. Maximum Annual Rate: 75	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: The used oil is generated solely by the facility, mostly during the repair season. The on-specification used oil is properly stored and burned in the boilers for energy recovery. The amount generated ranges between 50,000 and 75,000 gallons per year.		

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 1

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	121	115	EL
PM10	121	115	NS
NOX			EL
VOC			EL
SO2	115		EL
CO			NS
H106 (Hydrochloric Acid)			NS
H115 (Methanol)			NS
H132 (Naphthalene)			NS
H151 (Polycyclic Organic Matter)			NS
Total HAPS			NS
PM2.5	121	115	NS

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 1

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Particulate Matter - PM

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 83.5 lb/hour 243.2 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.25 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Carbonaceous Fuel Burning: 334.1 MMBtu/hr (1-hr average) x 0.25 lb/MMBtu = 83.5 lb/hr 266.7 MMBtu/hr (24-hr average) x 0.25 lb/MMBtu x 7,296 hr/yr ÷ 2,000 lb/ton = 243.2 TPY Fuel Oil Firing: 229.7 MMBtu/hr x 0.10 lb/MMBtu = 22.97 lb/hr 22.97 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 83.8 TPY See Attachment GSH-EU1-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor and potential emissions based on maximum heat input for carbonaceous fuel burning.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

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Boiler No. 1

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Particulate Matter - PM

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.25 lb/MMBtu	4. Equivalent Allowable Emissions: 83.5 lb/hour 243.2 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-012-AV.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.10 lb/MMBtu	4. Equivalent Allowable Emissions: 22.97 lb/hour 83.8 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Rule 62-296.410(1)(b)2, F.A.C. The maximum allowable emissions have been calculated as if only oil were being used at the maximum oil firing rate.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 1

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Nitrogen Oxides - NOX

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: NOX		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 191.1 lb/hour 556.5 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.65 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Residue Firing: 294.0 MMBtu/hr (1-hr average) x 0.65 lb/MMBtu = 191.1 lb/hr 234.7 MMBtu/hr (24-hr average) x 0.65 lb/MMBtu x 7,296 hr/yr ÷ 2,000 lb/ton = 556.5 TPY Bagasse Firing: 334.1 MMBtu/hr (1-hr average) x 0.45 lb/MMBtu = 150.3 lb/hr 266.7 MMBtu/hr (24-hr average) x 0.45 lb/MMBtu x 7,296 hr/yr ÷ 2,000 lb/ton = 437.8 TPY See Attachment GSH-EU1-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor and potential emissions based on maximum heat input for residue firing.			

EMISSIONS UNIT INFORMATION

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Boiler No. 1

POLLUTANT DETAIL INFORMATION

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Nitrogen Oxides – NOX

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.65 lb/MMBtu	4. Equivalent Allowable Emissions: 191.1 lb/hour 556.5 tons/year
5. Method of Compliance: EPA Method 7 or 7E	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AO50-191721 dated 1/27/97, RACT Permit Amendment. Applies when firing bagasse residue.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.45 lb/MMBtu	4. Equivalent Allowable Emissions: 150.3 lb/hour 548.5 tons/year
5. Method of Compliance: EPA Method 7 or 7E	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AO50-191721 dated 1/27/97, RACT Permit Amendment. Applies when firing bagasse.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

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Boiler No. 1

POLLUTANT DETAIL INFORMATION

Page [3] of [4]
Volatile Organic Compounds - VOC

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 233.9 lb/hour 681.0 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.70 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 334.1 MMBtu/hr (1-hr average) x 0.70 lb/MMBtu = 233.9 lb/hr 266.7 MMBtu/hr (24-hr average) x 0.70 lb/MMBtu x 7,296 hr/yr ÷ 2,000 lb/ton = 681.0 TPY See Attachment GSH-EU1-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Based on bagasse firing only.			

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 1

POLLUTANT DETAIL INFORMATION

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Volatile Organic Compounds - VOC

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.70 lb/MMBtu	4. Equivalent Allowable Emissions: 233.9 lb/hour 681.0 tons/year
5. Method of Compliance: EPA Methods 25A and 18 combined	
6. Allowable Emissions Comment (Description of Operating Method): Based on firing only bagasse. The allowable emission rate of 0.70 lb/MMBtu was requested by permittee pursuant to Rule 62-296.570(2), F.A.C. Permit No. 0990026-005-AC.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 1

POLLUTANT DETAIL INFORMATION

Page [4] of [4]
Sulfur Dioxide - SO2

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 642.2 lb/hour 2,196.5 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 2.4% sulfur oil Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Fuel Oil: $229.7 \text{ MMBtu/hr} \times 2.607 \text{ lb SO}_2/\text{MMBtu} = 598.7 \text{ lb/hr}$ $598.7 \text{ lb/hr} \times 7,296 \text{ hr/yr} \div 2,000 \text{ lb/ton} = 2,184.2 \text{ TPY}$ Remainder Residue: $64.3 \text{ MMBtu/hr} \times 0.674 \text{ lb SO}_2/\text{MMBtu} = 43.3 \text{ lb/hr}$ $5.0 \text{ MMBtu/hr (24-hr average)} \times 0.674 \text{ lb SO}_2/\text{MMBtu} \times 7,296 \text{ hr/yr} \div 2,000 \text{ lb/ton} = 12.3 \text{ TPY}$ Total: $598.7 \text{ lb/hr} + 43.3 \text{ lb/hr} = 642.2 \text{ lb/hr}$ $2,184.2 \text{ TPY} + 12.3 \text{ TPY} = 2,196.5 \text{ TPY}$ See Attachment GSH-EU1-F1.10b			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor represents fuel oil firing only. Potential emissions based on combination of residue and fuel oil firing.			

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 1

POLLUTANT DETAIL INFORMATION

Page [4] of [4]
Sulfur Dioxide - SO2

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 2.4% sulfur oil	4. Equivalent Allowable Emissions: 598.7 lb/hour 2,184.2 tons/year
5. Method of Compliance: Fuel Oil Analysis	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on fuel oil burning only.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 1

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE30	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 30 % Exceptional Conditions: 40 % Maximum Period of Excess Opacity Allowed: 2 min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Rule 62-296.410(1)(b)1, F.A.C.	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 1

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 3

1. Parameter Code: PRS	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: ABB Scrubber Model Number: 2600T Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures total pressure drop across wet scrubber.	

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 8711TSA040R1N061 Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures inlet water flow to the wet scrubber.	

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 1

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor **3** of **3**

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 1151DP Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures steam flow on Boiler No. 1.	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 1

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>GSH-EU1-I1</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>GSH-EU1-I2</u> <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>GSH-EU1-I3</u> <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>GSH-EU1-I4</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 1

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU1-IV1 <input type="checkbox"/> Not Applicable
2. Compliance Assurance Monitoring <input checked="" type="checkbox"/> Attached, Document ID: CAM Plan <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU1-IV3 <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

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ATTACHMENT GSH-EU1-B6

MAXIMUM FUEL USAGE AND HEAT INPUT RATES

**Attachment GSH-EU1-B6a. Maximum Hourly Heat Input and Fuel Usage Rates
Boiler No. 1, SCGCF, Belle Glade**

Fuel	Heat Transfer			Fuel Firing Rate
	Heat Input to Boiler	Efficiency %	Heat Output to Steam	
Maximum Short-Term				
	(MMBtu/hr)		(MMBtu/hr)	
Bagasse	334.1	55.0	183.8	20.88 tons/hr ^a
Residue	294.0	62.5	183.8	16.52 tons/hr ^b
No. 6 Fuel Oil	229.7	62.5	143.6	1,521 gal/hr
<u>Max fuel firing + bagasse</u>				
Bagasse	73.1	55.0	40.2	9,135 tons/hr ^a
Residue	0	62.5	0	0 tons/hr ^b
No. 6 Fuel Oil	229.7	62.5	143.6	1,521 gal/hr
Total	302.8		183.8	
<u>Max fuel firing + Residue</u>				
Bagasse	0	55.0	0	0 tons/hr ^a
Residue	64.3	62.5	40.2	3.61 tons/hr ^b
No. 6 Fuel Oil	229.7	62.5	143.6	1,521 gal/hr
Total	294.0		183.8	

^a Based on bagasse firing.

^b Based on residue firing.

Notes:

Total steam production required = 175,000 lb/hr.

Net steam enthalpy = 1,050 Btu/lb.

Total heat output to steam = 175,000 lb/hr steam x 1,050 Btu/lb = 183.8 MMBtu/hr.

Fuels may be burned in combination, not to exceed total heat outputs.

Based on fuel heating values as follows:

Bagasse, dry - 8,000 Btu/lb

Residue, dry - 8,900 Btu/lb

No. 6 Fuel Oil - 151,000 Btu/gal

**Attachment GSH-EU1-B6b. Maximum 24-Hour and Annual Heat Input and Fuel Usage Rates
Boiler No. 1, SCGCF, Belle Glade**

Fuel	Heat Transfer			Fuel Firing Rate	
	Heat Input to Boiler	Efficiency %	Heat Output to Steam	24-Hour	Annual
	Maximum 24-Hour				
	(MMBtu/hr)		(MMBtu/hr)		
Bagasse	266.70	55.0	146.69	16.7 tons/hr ^a	121,615.2 tons/yr
Residue	234.70	62.5	146.69	13.2 tons/hr ^b	96,199.0 tons/yr
No. 6 Fuel Oil	229.7	62.5	143.6	1,521 gal/hr	11,098,617 gal/yr
<u>Max fuel firing + bagasse</u>					
Bagasse	5.69	55.0	3.13	0.36 tons/hr ^a	2,593.0 tons/yr
Residue	0	62.5	0	0 tons/hr ^b	0.0 tons/yr
No. 6 Fuel Oil	229.7	62.5	143.56	1,521 gal/hr	11,098,617 gal/yr
Total	235.4		146.69		
<u>Max fuel firing + Residue</u>					
Bagasse	0	55.0	0.00	0 tons/hr ^a	0.0 tons/yr
Residue	5.00	62.5	3.12	0.28 tons/hr ^b	2,047.8 tons/yr
No. 6 Fuel Oil	229.70	62.5	143.56	1,521 gal/hr	11,098,617 gal/yr
Total	234.70		146.69		

^a Based on bagasse firing.

^b Based on residue firing.

Notes:

Total steam production required = 139,700 lb/hr.

Net steam enthalpy = 1,050 Btu/lb.

Total heat output to steam = 139,700 lb/hr steam x 1,050 Btu/lb = 146.69 MMBtu/hr.

Fuels may be burned in combination, not to exceed total heat outputs.

Based on fuel heating values as follows:

Bagasse, dry - 8,000 Btu/lb

Residue, dry - 8,900 Btu/lb

No. 6 Fuel Oil - 151,000 Btu/gal



ATTACHMENT GSH-EU1-F1.10
CALCULATION OF EMISSIONS

Attachment GSH-EU1-F1.10a. Maximum Hourly Emissions of Regulated Pollutants
Boiler No. 1, SCGCF, Belle Glade

Regulated Pollutant	Bagasse			Residue			Fuel oil			Max Fuel Oil, Remainder Bagasse Hourly Emissions ^b (lb/hr)	Max Fuel Oil, Remainder Residue Hourly Emissions ^d (lb/hr)	Highest Hourly Emission Rate (lb/hr)			
	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)				Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)
Particulate (PM)	0.25	1	334.1	83.5	0.25	1	294.0	73.5	0.10	1	229.7	23.0	41.2	39.0	83.5
Sulfur dioxide	0.06	3	334.1	20.0	0.67	5	294.0	198.2	2.607	2	229.7	598.7	603.1	642.1	642.1 ^c
Nitrogen oxides	0.45	1	334.1	150.3	0.65	1	294.0	191.1	0.31	4	229.7	71.2	104.1	113.0	191.1
VOC	0.70	1	334.1	233.9	0.70	1	294.0	205.8	0.00185	6	229.7	0.4	51.6	45.4	233.9

Notes:

- ^a Activity factor is based on maximum steam rate of 175,000 lb/hr.
- ^b Based on 229.7 MMBtu/hr max. heat input from fuel oil combustion and 73.1 MMBtu/hr heat input from bagasse combustion.
- ^c Total emissions of SO₂ from all operating boilers shall not exceed 14 tons per day.
- ^d Based on 229.7 MMBtu/hr max. heat input from fuel oil combustion and 64.3 MMBtu/hr heat input from residue combustion.

Unless otherwise specified, heating values for each fuel used are as follows: 3,600 Btu/lb for wet bagasse, 8,000 Btu/lb dry bagasse, 8,900 Btu/lb for dry residue, and 151,000 Btu/gal for No. 6 fuel oil.

References:

1. Emission factor from permit specific condition (Permit No. 0990026-012-AV).
2. Based on maximum 2.4% fuel sulfur content as specified in Permit No. 0990026-012-AV. No. 6 fuel oil has heat input of 151,000 Btu/gal and density of 8.2 lb/gal. Hourly emissions based on 2 lb SO₂ per lb of S and assuming all sulfur is emitted as SO₂ when firing fuel oil. Calculation: 2.4% sulfur + 151,000 Btu/gal x 8.2 lb/gal x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu = 2.607 lb/MMBtu.
3. Based on industry test data.
4. Emission factor of 47 lb per 1,000 gallons for NO_x due to fuel oil firing, from AP-42 Table 1.3-1. Calculation: 47 lb/1000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.31 lb/MMBtu.
5. Sulfur content of residue assumed to be 0.5% (dry), with 40% removal in wet scrubbers. Calculation: 1/8900 Btu/lb x 0.5% sulfur x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu x 40% scrubber removal efficiency = 0.574 lb/MMBtu.
6. Emission factor of 0.28 lb per 1,000 gallons for VOC due to fuel oil firing, from AP-42 Table 1.3-3. Calculation: 0.28 lb/1,000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.00185 lb/MMBtu.

Attachment GSH-EU1-F1.10b. Maximum Annual Emissions of Regulated Pollutants
Boiler No. 1, SCGCF, Belle Glade

Regulated Pollutant	Bagasse			Residue			Fuel oil			Max Fuel Oil, Remainder Bagasse	Max Fuel Oil, Remainder Residue	Highest Annual Emission Rate ^e (TPY)			
	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Annual Emissions (TPY) ^c	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Annual Emissions (TPY) ^c	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)		Annual Emissions (TPY) ^{b,e}	Annual Emissions (TPY) ^{b,e}	
Particulate (PM)	0.25	1	266.7	243.2	0.25	1	234.7	214.0	0.10	1	229.7	83.8	88.9	88.4	243.2 ^e
Sulfur dioxide	0.06	3	266.7	58.4	0.674	5	234.7	577.2	2.607	2	229.7	2,184.2	2,185.4	2,196.5	2,196.5
Nitrogen oxides	0.45	1	266.7	437.8	0.65	1	234.7	556.5	0.31	4	229.7	259.8	269.0	271.6	556.5
VOC	0.70	1	266.7	681.0	0.70	1	234.7	599.3	0.00185	6	229.7	1.6	15.9	14.3	681.0

Notes:

- ^a Activity factor is based on maximum steam rate of 139,700 lb/hr.
- ^b Based on 229.7 MMBtu/hr max. heat input from fuel oil combustion and 5.6 MMBtu/hr heat input from bagasse combustion.
- ^c Total emissions of SO₂ from all operating boilers shall not exceed 14 tons per day.
- ^d Based on 229.7 MMBtu/hr max. heat input from fuel oil combustion and 5.0 MMBtu/hr heat input from residue combustion.
- ^e Based on 7,296 hr/yr operation.

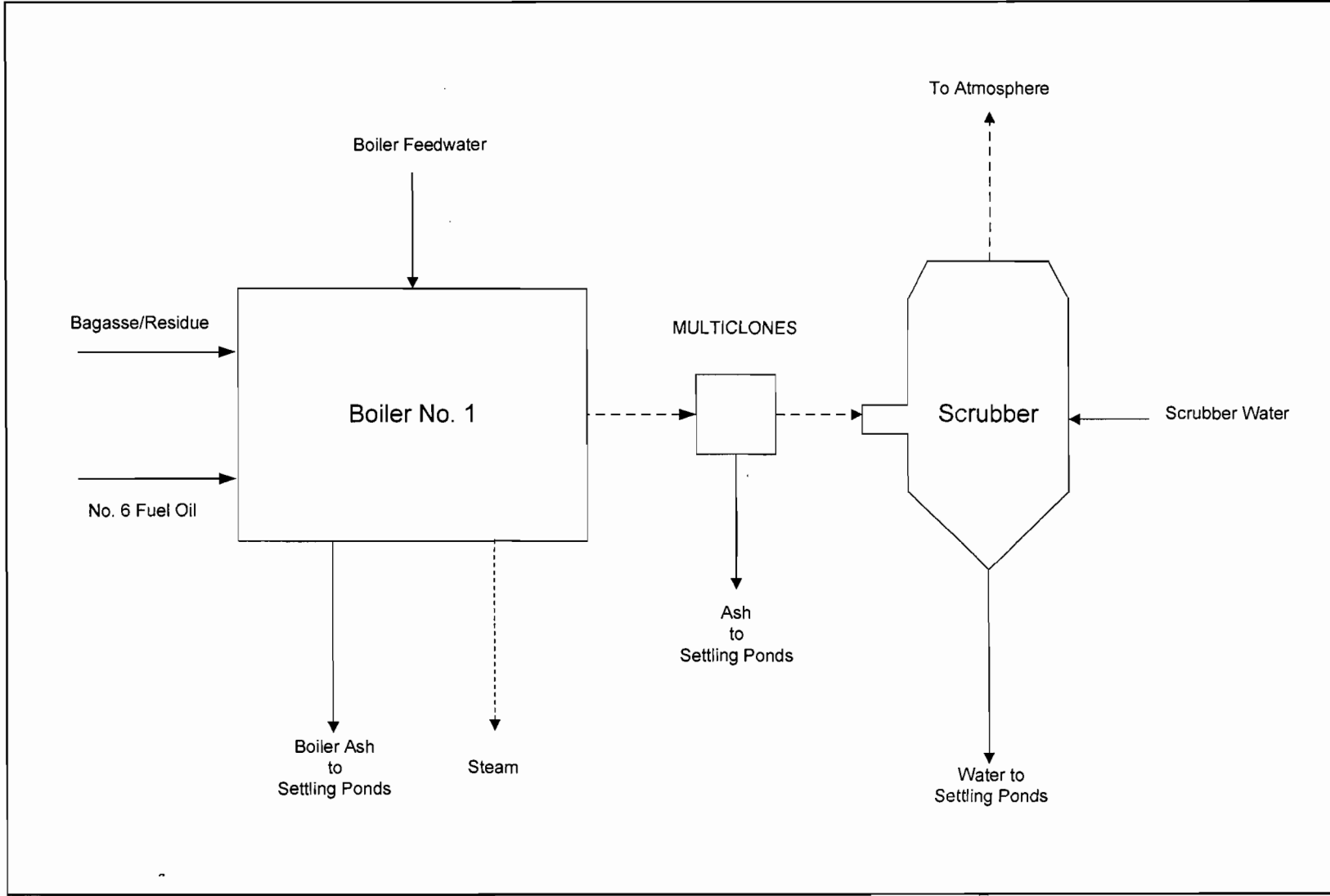
Unless otherwise specified, heating values for each fuel used are as follows: 3,600 Btu/lb for wet bagasse, 8,000 Btu/lb dry bagasse, 8,900 Btu/lb for dry residue, and 151,000 Btu/gal for No. 6 fuel oil.

References:

1. Emission factor from permit specific condition (Permit No. 0990026-012-AV).
2. Based on maximum 2.4% fuel sulfur content as specified in Permit No. 0990026-012-AV. No. 6 fuel oil has heat input of 151,000 Btu/gal and density of 8.2 lb/gal. Hourly emissions based on 2 lb SO₂ per lb of S and assuming all sulfur is emitted as SO₂ when firing fuel oil. Calculation: 2.4% sulfur ÷ 151,000 Btu/gal x 8.2 lb/gal x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu = 2.607 lb/MMBtu.
3. Based on industry test data.
4. Emission factor of 47 lb per 1,000 gallon for NO_x due to fuel oil firing, from AP-42 Table 1.3-1. Calculation: 47 lb/1000 gal ÷ 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.31 lb/MMBtu.
5. Sulfur content of residue assumed to be 0.5% (dry), with 40% removal in wet scrubbers. Calculation: 1/8900 Btu/lb x 0.5% sulfur x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu x 40% scrubber removal efficiency = 0.674 lb/MMBtu.
6. Emission factor of 0.28 lb per 1,000 gallon for VOC due to fuel oil firing, from AP-42 Table 1.3-3. Calculation: 0.28 lb/1000 gal ÷ 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.00185 lb/MMBtu.



ATTACHMENT GSH-EU1-11
PROCESS FLOW DIAGRAM



Attachment GSH-EU1-11
Process Flow Diagram

Process Area: Boiler No. 1

Sugar Cane Growers Cooperative of Florida

Process Flow Legend:	
Solid / Liquid	—————>
Gas	- - - - ->
Steam	- - - - ->



ATTACHMENT GSH-EU1-I2
FUEL ANALYSIS OR SPECIFICATION

**Attachment GSH-EU1-I2. Boiler Fuel Analysis
SCGCF, Belle Glade**

Parameter	Bagasse ^a	Residue ^b	No. 6 Fuel Oil
Dry Basis:			
Btu/lb	8,000	8,900	18,125-19,000 ^c
lb/gal	--	--	8 ^c
Btu/gal	--	--	145,000 - 152,000 ^c
<i>Average Analysis (Dry Basis %)</i>			
Carbon	54	51	87.3 ^c
Hydrogen	6	5	10.5 ^c
Nitrogen	0.39	0.4	0.18-0.28 ^d
Oxygen	40	35	0.64
Sulfur	0.04-0.08	0.4--0.6	0.0089-2.5 ^d
Ash	1.2-2.6	1.9--8.0	BDL - 0.6 ^d
Moisture	55	40	0.2 ^c

Sources:

- ^a Bagasse test analysis results; averaged values for 2002-2005.
- ^b Sugar Cane Growers Cooperative, 2002. Represents average values, since biomass in particular could vary depending on environmental conditions, as well as harvesting procedures.
- ^c Perry's Chemical Engineers' Handbook, 7th Edition.
- ^d Source: Boiler MACT Historical Data

ATTACHMENT GSH-EU1-13

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT GSH-EU1-I3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Sugar Cane Growers Cooperative of Florida
Boiler No. 1

Control equipment: One impingement wet scrubber, custom design.

Scrubbing Liquid:	Water
Inlet Water Pressure (psi):	40-100
Pressure Drop across Scrubber (inches H ₂ O):	2-10
Water Flow Rate (gpm):	100-300

ATTACHMENT GSH-EU1-I4

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT GSH-EU1-I4 PROCEDURE FOR STARTUP/SHUTDOWN

Sugar Cane Growers Cooperative of Florida

Boiler No. 1

During startup and shutdown of the boilers, excess PM, opacity, NO_x, SO₂, and VOC emissions for more than 2 hours in a 24-hour period are possible. Pursuant to Rule 62-210.700(1), F.A.C., the following procedures and precautions are taken to minimize the magnitude and duration of excess emissions during startup and shutdown of Boiler No. 1. Boiler room foreman and operating personnel have received proper training on emissions control procedures.

STARTUP INSTRUCTIONS

Note: Oil atomization will be provided initially by air until steam is available, for which arrangement must be made to have an air compressor available.

1. Connect hose from the air compressor to the boiler steam trap set located in the atomization steam header to provide oil atomization.
2. Turn on the electric oil heater, and set the temperature on 230°F; set the pressure on 80 psig, or between 80 and 90 psig.
3. Start re-circulating the soil through the system.
4. Open the superheater drains and vents.
5. Open the steam drum vent.
6. Open the drum inlet feed water valve and check valve.
7. Open the valve to drum pressure gauge.
8. Open valve to drum water columns.
9. Open the valve to drum automatic water level.
10. Close the continuous blowdown in tank.
11. Close the chemical feed pump valves.
12. Close the non-return valve and boiler main valve.
13. Close the soot blower header.
14. Close the feed water automatic by-pass valve.

In order to prepare to fire-up the boiler, do the following:

15. Start the ID fan. Keep the ID at -0.2" to -0.3" water.
16. Start the FD fan. Keep the FD at +0.2" water.
17. Start the dust collector.
18. Check the scrubber water level.
19. Turn on the water re-circulation pump.
20. Adjust the FD fan air to burner.
21. Start the burner.
22. Watch the steam drum pressure.

After three or three and a half hours, the steam drum pressure should be about 100 psig.

23. When the steam drum pressure reaches 100 psig, start warming the main header by slowly opening the drum main valve, and do the following:
24. Open valve to main oil burner header.
25. Switch from electric oil heater to steam oil heater, and turn off the electric oil heater.
26. Open valve to steam atomization system.
27. Switch from air atomization to steam atomization.
28. Disconnect compressor air line and turn off the compressor.
29. Open the continuous blowdown line.
30. Open the chemical feed line.
31. Start raising the steam drum pressure at a rate of 100 psig per hour, until the pressure reaches 400 psig.
32. Open the non-return valve to steam header.
33. Open the steam main valve to steam header.

After flow is stabilized, do the following:

34. Close the drum vent.
35. Close the superheater vents
36. Start feeding the boiler with bagasse.
37. The boiler is on-line.

Cold Start-Ups

Cold start-ups should not be made in less than 7 hours from the first fire to normal working pressure of about 400 psig. Normally, a cold start-up will require 7 to 12 hours to complete.

Warm Start-Ups

Warm start-ups with steam and hot water available can be made in less time, typically 2 to 7 hours, depending on the boiler operating conditions.

SHUTDOWN INSTRUCTIONS

1. The feeding of fuel oil and steam to the burners is discontinued.
2. The feeding of carbonaceous fuel to the furnace is discontinued.
3. Water flow to the scrubber is maintained until the ID fans are stopped. This must be done no less than two hours after the shutdown procedure starts.

ATTACHMENT GSH-EU1-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

PERMITTEE:

Sugar Cane Growers Cooperative of Florida, Inc.
P.O. Box 666
Belle Glade, FL 33430-0666

Authorized Representative:

Mr. Jose F. Alvarez, V.P. of Planning and Plant Operations

Glades Sugar House
Air Permit No. 0990026-006-AC
Facility ID No. 0990026
SIC No. 2061
Permit Expires: October 1, 2005

PROJECT AND LOCATION

This permit authorizes the following work for Boilers 1 and 2: replacement of the existing fuel grates, addition of a new combustion air fan, modification of the combustion air distribution to provide more over-fire air, and the repair of concrete supports and refractory near the grates. The existing sugar mill boilers operate at the Glades Sugar House, which is located at 1500 West Sugar House Road in Belle Glade, Palm Beach County, Florida.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to perform the proposed work in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department. This permit supplements all other air construction and operation permits for the affected emissions units.

CONTENTS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Units Specific Conditions
- Section 4. Appendices

Howard L. Rhodes, Director
Division of Air Resources Management

5/27/03

(Date)

"More Protection, Less Process"

Printed on recycled paper.

SECTION 1. GENERAL INFORMATION

FACILITY AND PROJECT DESCRIPTION

Sugar Cane Growers Cooperative of Florida, Inc. operates a sugar mill that produces raw sugar and molasses from sugarcane grown in nearby fields. Bagasse, the fibrous plant residue remaining after milling, is burned in six boilers to generate steam for the plant. Only the following boilers are affected by this project.

ID	Emission Unit Description
001	Boiler 1
002	Boiler 2

REGULATORY CLASSIFICATION

Title III: The existing facility is identified as a major source of hazardous air pollutants (HAP).

Title IV: The existing facility operates no units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The existing facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

RELEVANT DOCUMENTS

The permit application and additional information received to make it complete are not a part of this permit; however, the information is specifically related to this permitting action and is on file with the Department. This permit supplements all other air construction and operation permits for these boilers.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: Applications for permits to construct or modify emissions units subject to PSD preconstruction review shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Applications for other permits to construct, modify or operate an emissions unit shall be submitted to Air Resources Section of the Department's South District Office at 2295 Victoria Avenue, Suite #364, Fort Myers, Florida 33901-3381.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Pollution Control Section of the Palm Beach County Health Department at P.O. Box 29 (901 Evernia Street), West Palm Beach, FL 33402-0029. Copies of all such documents shall be submitted to the Air Resources Section of the Department's South District Office at 2295 Victoria Avenue, Suite #364, Fort Myers, Florida 33901-3381.
3. Appendices: The following Appendices are attached as part of this permit: Appendix CF (Citation Format), and Appendix GC (General Conditions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. Emissions units at this facility are subject to all applicable provisions of Chapter 403, F.S. and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Title V Permit: This permit authorizes the specified construction activities and initial operation of the affected emissions units to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU-001/002 – Boilers 1 and 2

This section of the permit addresses the following emissions units.

ID No.	Emissions Unit Description
001 and 002	Boilers 1 and 2 are identical boilers manufactured by Riley in 1963 and are primarily fired with bagasse. The current Title V permit specifies the maximum steam production rate as 175,000 lb/hour (24-hour average) at the design operating conditions of 400 psig and 585°F. Particulate matter emissions are reduced by a mechanical dust collectors followed by wet scrubbers.

CONSTRUCTION

1. Grate Replacement Project: The permittee is authorized to perform the following work: replace the existing traveling grate on each boiler with a water-cooled pinhole grate; add a new combustion air fan; modify the combustion air distribution to provide more over-fire air; and repair concrete supports and refractory near the grates. The project shall not increase the capacity of either boiler. *{Permitting Note: The proposed work is expected to be performed during the 2004 off-season.}* [Applicant Request]

EMISSIONS AND PERFORMANCE REQUIREMENTS

{Permitting Note: The authorized construction shall not result in any increases in current permitted capacities of these boilers. The project does not alter any fuels, emissions standards or restrictions on operation that are specified in other air construction or operation permits. This permit supplements all other air construction and operation permits for these boilers.}

PERFORMANCE TESTING

2. Capacity Test: Prior to conducting any of the proposed work, the permittee shall conduct an initial capacity test on each boiler when firing only bagasse. Each test shall be conducted for a minimum of three continuous hours and the following information shall be recorded at 15-minute intervals: steam and feed water temperatures (° F); steam and feed water pressures (psig); and steam production (lb). Within 45 days of completing each capacity test, the permittee shall submit a report summarizing the test and the results. In addition to the recorded data, the test report shall identify the average steam production rate (lb/hour) and the calculated heat input rate (MMBtu/hour) for the three hour test. If a boiler is unable to achieve an average steam production rate during the capacity test of at least 157,500 lb/hour, then the permittee shall apply for modification of this permit to restrict the steam production rate (24-hour average) of the boiler to the average steam production attained during the test and include an equivalent heat input rate restriction (MMBtu/hour). If the average steam production rate during the capacity test is at least 157,500 lb/hour, then no further action is necessary. *{Permitting Note: This condition ensures that the grate replacement project will not result in an increase in capacity, which could trigger PSD review.}* [Application; Rules 62-210.200(PTE) and Rule 62-212.400(PSD), F.A.C.]
3. Emissions Tests: In accordance with the methods and procedures specified in Appendix C of 40 CFR 60, each boiler shall be tested to determine whether or not a change resulted in the hourly emission rates of particulate matter, nitrogen oxides, and volatile organic compounds. Tests shall be conducted at permitted capacity and performed in accordance with the methods and procedures specified in the current Title V operation permit. Rule 62-297.310(2)(b), F.A.C. defines *permitted capacity* as "90 to 100 percent of the maximum operation rate allowed by the permit." Tests shall be conducted during the crop season immediately following the authorized construction. A summary of the tests conducted and the results shall be provided with 45 days of completing the tests. *{Permitting Note: Each boiler is currently required to test annually for emissions of particulate matter, nitrogen oxides, and volatile organic compounds. The annual test may be used for this determination. Test results showing increased hourly emissions may require additional permitting actions to address PSD applicability.}* [Appendix C of 40 CFR 60; Rule 62-212.400(PSD), F.A.C.]

SECTION 4. APPENDICES
CONTENTS

Appendix CF. Citation Format

Appendix GC. General Conditions

SECTION 4. APPENDIX CF
CITATION FORMATS

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

REFERENCES TO PREVIOUS PERMITTING ACTIONS

Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit.

"AO" identifies the permit as an Air Operation Permit

"123456" identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located

"2222" represents the specific facility ID number

"001" identifies the specific permit project

"AC" identifies the permit as an air construction permit

"AF" identifies the permit as a minor federally enforceable state operation permit

"AO" identifies the permit as a minor source air operation permit

"AV" identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality

"FL" means that the permit was issued by the State of Florida

"317" identifies the specific permit project

RULE CITATION FORMATS

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CRF 60.7]

Means: Title 40, Part 60, Section 7

SECTION 4. APPENDIX GC
GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither 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. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use 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.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy and records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. 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 provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of noncompliance, including 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 for revocation of this permit.

9. 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

SECTION 4. APPENDIX GC
GENERAL CONDITIONS

Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The 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.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (NA);
 - b. Determination of Prevention of Significant Deterioration (NA); and
 - c. Compliance with New Source Performance Standards (NA).
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained 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:
 - 1) The date, exact place, and time of sampling or measurements;
 - 2) The person responsible for performing the sampling or measurements;
 - 3) The dates analyses were performed;
 - 4) The person responsible for performing the analyses;
 - 5) The analytical techniques or methods used; and
 - 6) 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 corrected promptly.

Memorandum

**Florida Department of
Environmental Protection**

TO: Howard Rhodes, DARM
THRU: Trina Vielhauer, BAR ✓
Al Linero, NSR ✓
FROM: Jeff Koerner, NSR ✓
DATE: May 20, 2003
SUBJECT: Final Air Construction Permit No. 0990026-006-AC
Sugar Cane Growers Cooperative of Florida, Inc.
Boilers 1 and 2 – Grate Replacements

The Final Permit for this project is attached for your approval and signature, which authorizes the following work for Boilers 1 and 2: replacement of the existing fuel grates, addition of a new combustion air fan, modification of the combustion air distribution to provide more over-fire air, and the repair of concrete supports and refractory near the grates. The existing sugar mill boilers operate at the Glades Sugar House, which is near Belle Glade in Palm Beach County, Florida. The Department distributed an "Intent to Issue Permit" package on April 18, 2003. The applicant published the "Public Notice of Intent to Issue" in The Palm Beach Post on April 26, 2003. The Department received the proof of publication on May 12, 2003. No requests for administrative hearings were filed. No comments on the draft permit were received.

Day #90 is July 30, 2003. I recommend your approval of the attached Final Permit for this project.

Attachments

ATTACHMENT GSH-EU1-IV3
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT GSH-EU1-IV3

ALTERNATIVE METHODS OF OPERATION

Boiler No. 1 may simultaneously burn four different fuels: bagasse, residue, No. 6 residual oil, and small quantities of on-spec used oil. Small quantities of on-spec used oil contaminated soil that is generated on-site can be burned, as well as small quantities of hazardous materials under the BIF rule. Heat input from bagasse shall not exceed the permitted limit of 334.1 MMBtu/hr (maximum 1-hr average) or 266.7 MMBtu/hr (maximum 24-hr average). Heat input from residue shall not exceed 294.0 MMBtu/hr (maximum 1-hr average) or 234.7 MMBtu/hr (maximum 24-hr average). Heat input from fuel oil and on-spec used oil shall not exceed 229.7 MMBtu/hr and 6.04 MMBtu/hr (40 gallons per hour), respectively.

EMISSIONS UNIT INFORMATION

Section [2]

Boiler No. 2

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [2]

Boiler No. 2

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions..... _____

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Boiler No. 2

3. Emissions Unit Identification Number: **002**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

9. Package Unit:
 Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: _____ MW

11. Emissions Unit Comment:
This boiler has a water-cooled, pin-hole, traveling grate, and is fired by bagasse, residue, and fuel oil. This emission unit produces steam for use in the production of raw sugar.

EMISSIONS UNIT INFORMATION

Section [2]

Boiler No. 2

Emissions Unit Control Equipment/Method: Control 1 of 2

1. Control Equipment/Method Description: Multiple Cyclone Dust Collector
2. Control Device or Method Code: 121

Emissions Unit Control Equipment/Method: Control 2 of 2

1. Control Equipment/Method Description: Impingement Type Wet Scrubber
2. Control Device or Method Code: 115

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [2]

Boiler No. 2

**C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)**

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: B (Boiler No. 2)		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 150 feet	7. Exit Diameter: 7.0 feet	
8. Exit Temperature: 151 °F	9. Actual Volumetric Flow Rate: 111,160 acfm	10. Water Vapor: 26 %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Stack parameters based on December 2009 stack test.			

EMISSIONS UNIT INFORMATION

Section [2]

Boiler No. 2

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Bagasse		
2. Source Classification Code (SCC): 1-02-011-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 20.881	5. Maximum Annual Rate: 120,269	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.08, dry	8. Maximum % Ash: 2.6, dry	9. Million Btu per SCC Unit: 16
10. Segment Comment: Maximum hourly tons burned on dry basis based on 334.1 MMBtu/hr (1-hr average) and a heating value of 8,000 Btu/lb (dry) for bagasse. Maximum annual rate based on 263.75 MMBtu/hr (24-hr average).		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Solid Waste: Residue		
2. Source Classification Code (SCC): 1-02-012-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 16.517	5. Maximum Annual Rate: 95,176	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.6, dry	8. Maximum % Ash: 8.0, dry	9. Million Btu per SCC Unit: 17.8
10. Segment Comment: Tons burned on dry basis based on 294.0 MMBtu/hr (1-hr average) and a heating value of 8,900 Btu/lb (dry) for bagasse residue. Maximum annual rate based on 234.7 MMBtu/hr (24-hr average).		

EMISSIONS UNIT INFORMATION

Section [2]

Boiler No. 2

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Residual Oil: Grade 6 Oil		
2. Source Classification Code (SCC): 1-02-004-01		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 1.521	5. Maximum Annual Rate: 11,100	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 2.40	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: Based on 229.7 MMBtu/hr (24-hr average) and heating value of 151,000 Btu/gal for No. 6 fuel oil.		

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Liquid Waste: Waste Oil		
2. Source Classification Code (SCC): 1-02-013-02		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 0.04	5. Maximum Annual Rate: 75	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: The used oil is generated solely by the facility, mostly during the repair season. The on-specification used oil is properly stored and burned in the boilers for energy recovery. The amount generated ranges between 50,000 and 75,000 gallons per year.		

EMISSIONS UNIT INFORMATION

Section [2]

Boiler No. 2

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	121	115	EL
PM10	121	115	NS
NOX			EL
VOC			EL
SO2	115		EL
CO			NS
H106 (Hydrochloric Acid)			NS
H115 (Methanol)			NS
H132 (Naphthalene)			NS
H151 (Polycyclic Organic Matter)			NS
Total HAPS			NS
PM2.5	121	115	NS

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [2]
Boiler No. 2

Page [1] of [4]
Particulate Matter - PM

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 83.5 lb/hour 240.6 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.25 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Carbonaceous Fuel Burning: 334.1 MMBtu/hr (1-hr average) x 0.25 lb/MMBtu = 83.5 lb/hr 263.8 MMBtu/hr (24-hr average) x 0.25 lb/MMBtu x 7,296 hr/yr ÷ 2,000 lb/ton = 240.6 TPY Fuel Oil Firing: 229.7 MMBtu/hr x 0.10 lb/MMBtu = 22.97 lb/hr 22.97 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 83.8 TPY See Attachment GSH-EU2-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor and potential emissions based on maximum heat input for carbonaceous fuel burning.			

EMISSIONS UNIT INFORMATION

Section [2]
Boiler No. 2

POLLUTANT DETAIL INFORMATION

Page [1] of [4]
Particulate Matter - PM

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.25 lb/MMBtu	4. Equivalent Allowable Emissions: 83.5 lb/hour 240.6 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-012-AV. Based on bagasse firing only.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.10 lb/MMBtu	4. Equivalent Allowable Emissions: 22.97 lb/hour 83.8 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Rule 62-296.410(1)(b)2, F.A.C. and Permit No. 0990026-012-AV. The maximum allowable emissions have been calculated as if only oil were being used at the maximum oil firing rate.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [2]
Boiler No. 2

POLLUTANT DETAIL INFORMATION

Page [2] of [4]
Nitrogen Oxides – NOX

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: NOX		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 191.1 lb/hour 550.6 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.65 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Residue Firing: $294.0 \text{ MMBtu/hr (1-hr average)} \times 0.65 \text{ lb/MMBtu} = 191.1 \text{ lb/hr}$ $232.2 \text{ MMBtu/hr (24-hr average)} \times 0.65 \text{ lb/MMBtu} \times 7,296 \text{ hr/yr} \div 2,000 \text{ lb/ton} = 550.6 \text{ TPY}$ Bagasse Firing: $334.1 \text{ MMBtu/hr (1-hr average)} \times 0.45 \text{ lb/MMBtu} = 150.3 \text{ lb/hr}$ $263.8 \text{ MMBtu/hr (24-hr average)} \times 0.45 \text{ lb/MMBtu} \times 7,296 \text{ hr/yr} \div 2,000 \text{ lb/ton} = 433.1 \text{ TPY}$ See Attachment GSH-EU2-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor and potential emissions based on maximum heat input for residue firing.			

EMISSIONS UNIT INFORMATION

Section [2]
Boiler No. 2

POLLUTANT DETAIL INFORMATION

Page [2] of [4]
Nitrogen Oxides - NOX

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.65 lb/MMBtu	4. Equivalent Allowable Emissions: 191.1 lb/hour 550.6 tons/year
5. Method of Compliance: EPA Method 7 or 7E	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AO50-191731 dated 1/27/97, RACT Permit Amendment. Applies when firing bagasse residue.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.45 lb/MMBtu	4. Equivalent Allowable Emissions: 150.3 lb/hour 433.1 tons/year
5. Method of Compliance: EPA Method 7 or 7E	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AO50-191731 dated 1/27/97, RACT Permit Amendment. Applies when firing bagasse.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [2]
Boiler No. 2

POLLUTANT DETAIL INFORMATION

Page [3] of [4]
Volatile Organic Compounds - VOC

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 233.9 lb/hour 673.6 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.70 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 334.1 MMBtu/hr (1-hr average) x 0.70 lb/MMBtu = 233.9 lb/hr 263.8 MMBtu/hr (24-hr average) x 0.70 lb/MMBtu x 7,296 hr/yr ÷ 2,000 lb/ton = 673.6 TPY See Attachment GSH-EU2-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Based on bagasse firing only.			

EMISSIONS UNIT INFORMATION

Section [2]
Boiler No. 2

POLLUTANT DETAIL INFORMATION

Page [3] of [4]
Volatile Organic Compounds - VOC

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.70 lb/MMBtu	4. Equivalent Allowable Emissions: 233.9 lb/hour 673.6 tons/year
5. Method of Compliance: EPA Methods 25A and 18 combined	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-005-AC dated 4/28/03. Based on firing only bagasse. The allowable emission rate of 0.70 lb/MMBtu was requested by permittee pursuant to Rule 62-296.570, F.A.C.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [2]
Boiler No. 2

Page [4] of [4]
Sulfur Dioxide - SO2

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 642.1 lb/hour 2,190.1 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 2.4% sulfur oil Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Fuel Oil: $229.7 \text{ MMBtu/hr} \times 2.607 \text{ lb SO}_2/\text{MMBtu} = 598.7 \text{ lb/hr}$ $598.7 \text{ lb/hr} \times 7,296 \text{ hr/yr} \div 2,000 \text{ lb/ton} = 2,184.2 \text{ TPY}$ Remainder Residue: $64.3 \text{ MMBtu/hr} \times 0.674 \text{ lb SO}_2/\text{MMBtu} = 43.3 \text{ lb/hr}$ $2.4 \text{ MMBtu/hr (24-hr average)} \times 0.674 \text{ lb SO}_2/\text{MMBtu} \times 7,296 \text{ hr/yr} \div 2,000 \text{ lb/ton} = 5.9 \text{ TPY}$ Total: $598.7 \text{ lb/hr} + 43.3 \text{ lb/hr} = 642.1 \text{ lb/hr}$ $2,184.2 \text{ TPY} + 5.9 \text{ TPY} = 2,190.1 \text{ TPY}$ See Attachment GSH-EU2-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor represents fuel oil firing only. Potential emissions based on combination of residue and fuel oil firing.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [2]
Boiler No. 2

Page [4] of [4]
Sulfur Dioxide - SO2

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 2.4% sulfur oil	4. Equivalent Allowable Emissions: 598.7 lb/hour 2,184.2 tons/year
5. Method of Compliance: Fuel Oil Analysis	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on fuel oil burning only.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [2]

Boiler No. 2

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE30	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 30 % Exceptional Conditions: 40 % Maximum Period of Excess Opacity Allowed: 2 min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Rule 62-296.410(1)(b)1, F.A.C.	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [2]

Boiler No. 2

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 3

1. Parameter Code: PRS	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Yokogawa Model Number: EJA118W Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures total pressure drop across wet scrubbers.	

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 8711TSA040R1N061 Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures inlet water flow to the wet scrubbers.	

EMISSIONS UNIT INFORMATION

Section [2]

Boiler No. 2

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor **3** of **3**

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 1151DP4	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures steam flow on Boiler No. 2.	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

Section [2]
Boiler No. 2

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU2-11 <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU1-12 <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU2-13 <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU2-14 <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [2]
Boiler No. 2

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU1-IV1 <input type="checkbox"/> Not Applicable
2. Compliance Assurance Monitoring <input checked="" type="checkbox"/> Attached, Document ID: CAM Plan <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU2-IV3 <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

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ATTACHMENT GSH-EU2-B6

MAXIMUM FUEL USAGE AND HEAT INPUT RATES

**Attachment GSH-EU2-B6a. Maximum Hourly Heat Input and Fuel Usage Rates
Boiler No. 2, SCGCF, Belle Glade**

Fuel	Heat Transfer			Fuel Firing Rate
	Heat Input to Boiler	Efficiency %	Heat Output to Steam	
Maximum Short-Term				
	(MMBtu/hr)		(MMBtu/hr)	
Bagasse	334.1	55.0	183.8	20.88 tons/hr ^a
Residue	294.0	62.5	183.8	16.52 tons/hr ^b
No. 6 Fuel Oil	229.7	62.5	143.6	1,521 gal/hr
<u>Max fuel firing + bagasse</u>				
Bagasse	73.1	55.0	40.2	4.57 tons/hr ^a
Residue	0	62.5	0	0 tons/hr ^b
No. 6 Fuel Oil	229.7	62.5	143.6	1,521 gal/hr
Total	302.8		183.8	
<u>Max fuel firing + Residue</u>				
Bagasse	0	55.0	0	0 tons/hr ^a
Residue	64.3	62.5	40.2	3.61 tons/hr ^b
No. 6 Fuel Oil	229.7	62.5	143.6	1,521 gal/hr
Total	294.0		183.8	

^a Based on bagasse firing.

^b Based on residue firing.

Notes:

Total steam production required = 175,000 lb/hr

Net steam enthalpy = 1,050 Btu/lb

Total heat output to steam = 175,000 lb/hr steam x 1,050 Btu/lb = 183.8 MMBtu/hr

Fuels may be burned in combination, not to exceed total heat outputs.

Based on fuel heating values as follows:

Bagasse, dry - 8,000 Btu/lb

Residue, dry - 8,900 Btu/lb

No. 6 Fuel Oil - 151,000 Btu/gal



**Attachment GSH-EU2-B6b. Maximum 24-Hour and Annual Heat Input and Fuel Usage Rates
Boiler No. 2, SCGCF, Belle Glade**

Fuel	Heat Transfer			Fuel Firing Rate	
	Heat Input to Boiler	Efficiency %	Heat Output to Steam	24-Hour	Annual
	Maximum 24-Hour				
	(MMBtu/hr)		(MMBtu/hr)		
Bagasse	263.75	55.0	145.06	16.48 tons/hr ^a	120,269.3 TPY ^a
Residue	232.10	62.5	145.06	13.04 tons/hr ^b	95,133.3 TPY ^b
No. 6 Fuel Oil	229.7	62.5	143.56	1521.19 gal/hr	11,098,617 gal/yr
<u>Max fuel firing + bagasse</u>					
Bagasse	2.72	55.0	1.50	0.17 tons/hr ^a	1,241.6 TPY ^a
Residue	0.00	62.5	0.00	0.00 tons/hr ^b	0.0 TPY ^b
No. 6 Fuel Oil	229.7	62.5	143.56	1521.19 gal/hr	11,098,617 gal/yr
Total	232.42		145.06		
<u>Max fuel firing + Residue</u>					
Bagasse	0.00	55.0	0.00	0.00 tons/hr ^a	0.0 TPY ^a
Residue	2.40	62.5	1.50	0.13 tons/hr ^b	982.1 TPY ^b
No. 6 Fuel Oil	229.7	62.5	143.56	1521.19 gal/hr	11,098,617 gal/yr
Total	232.10		145.06		

^a Based on bagasse firing.

^b Based on residue firing.

Notes:

Total steam production required = 138,154 lb/hr

Net steam enthalpy = 1,050 Btu/lb

Total heat output to steam = 138,154 lb/hr steam x 1,050 Btu/lb = 145.06 MMBtu/hr

Fuels may be burned in combination, not to exceed total heat outputs.

Based on fuel heating values as follows:

Bagasse, dry - 8,000 Btu/lb

Residue, dry - 8,900 Btu/lb

No. 6 Fuel Oil - 151,000 Btu/gal



ATTACHMENT GSH-EU2-F1.10
CALCULATION OF EMISSIONS

Attachment GSH-EU2-F1.10a. Maximum Hourly Emissions of Regulated Pollutants
Boiler No. 2, SCGCF, Belle Glade

Regulated Pollutant	Bagasse			Residue			Fuel oil			Max Fuel Oil, Remainder Bagasse	Max Fuel Oil, Remainder Residue	Highest Hourly Emission Rate (lb/hr)			
	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)		Hourly Emissions ^b (lb/hr)	Hourly Emissions ^d (lb/hr)	
Particulate (PM)	0.25	1	334.1	83.5	0.25	1	294.0	73.5	0.10	1	229.7	23.0	41.2	39.0	83.5
Sulfur dioxide	0.06	3	334.1	20.0	0.674	5	294.0	198.2	2.607	2	229.7	598.7	603.1	642.1	642.1 ^c
Nitrogen oxides	0.45	1	334.1	150.3	0.65	1	294.0	191.1	0.31	4	229.7	71.2	104.1	113.0	191.1
VOC	0.70	1	334.1	233.9	0.70	1	294.0	205.8	0.00185	6	229.7	0.4	51.6	45.4	233.9

Footnotes:

- ^a Activity factor is based on maximum 1-hour steam rate of 175,000 lb/hr.
- ^b Based on 229.7 MMBtu/hr max. heat input from fuel oil combustion and 73.1 MMBtu/hr heat input from bagasse combustion.
- ^c Total emissions of SO₂ from all operating boilers shall not exceed 14 tons per day.
- ^d Based on 229.7 MMBtu/hr max. heat input from fuel oil combustion and 64.3 MMBtu/hr heat input from residue combustion.

Unless otherwise specified, heating values for each fuel used are as follows: 3,600 Btu/lb for wet bagasse, 8,000 Btu/lb dry bagasse, 8,900 Btu/lb for dry residue, and 151,000 Btu/gal for No. 6 fuel oil.

References:

1. Emission factor from permit specific condition (Permit No. 0990026-012-AV).
2. Based on maximum 2.4% fuel sulfur content as specified in Permit No. 0990026-012-AV. No. 6 fuel oil has heat input of 151,000 Btu/gal and density of 8.2 lb/gal. Hourly emissions based on 2 lb SO₂ per lb of S end assuming all sulfur is emitted as SO₂ when firing fuel oil. Calculation: 2.4% sulfur + 151,000 Btu/gal x 8.2 lb/gal x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu = 2.607 lb/MMBtu
3. Based on industry test data.
4. Emission factor of 47 lb per 1,000 gallons for NO_x due to fuel oil firing, from AP-42 Table 1.3-1. Calculation: 47 lb/1000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.31 lb/MMBtu
5. Sulfur content of residue assumed to be 0.5% (dry), with 40% removal in wet scrubbers. Calculation: 1/8900 Btu/lb x 0.5% sulfur x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu x 40% scrubber removal efficiency = 0.674 lb/MMBtu
6. Emission factor of 0.28 lb per 1,000 gallons for VOC due to fuel oil firing, from AP-42 Table 1.3-3. Calculation: 0.28 lb/1000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.00185 lb/MMBtu

Attachment GSH-EU2-F1.10b. Maximum Annual Emissions of Regulated Pollutants
Boiler No. 2, SCGCF, Belle Glade

Regulated Pollutant	Bagasse			Residue			Fuel oil			Max Fuel Oil, Remainder Bagasse Annual Emissions (TPY) ^{b, e}	Max Fuel Oil, Remainder Residue Annual Emissions (TPY) ^{d, e}	Highest Annual Emission Rate ^a (TPY)			
	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Annual Emissions (TPY) ^a	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Annual Emissions (TPY) ^a	Emission Factor (lb/MMBtu)				Ref	Activity Factor ^a (MMBtu/hr)	Annual Emissions (TPY) ^a
Particulate (PM)	0.25	1	263.7	240.5	0.25	1	232.1	211.7	0.10	1	229.7	83.8	88.9	86.0	240.5 ^c
Sulfur dioxide	0.06	3	263.7	57.7	0.674	5	232.1	570.8	2.607	2	229.7	2,184.2	2,185.4	2,190.1	2,190.1
Nitrogen oxides	0.45	1	263.7	433.0	0.65	1	232.1	550.3	0.31	4	229.7	259.8	269.0	265.4	550.3
VOC	0.70	1	263.7	673.5	0.70	1	232.1	592.7	0.00185	6	229.7	1.6	15.9	7.7	673.5

Footnotes:

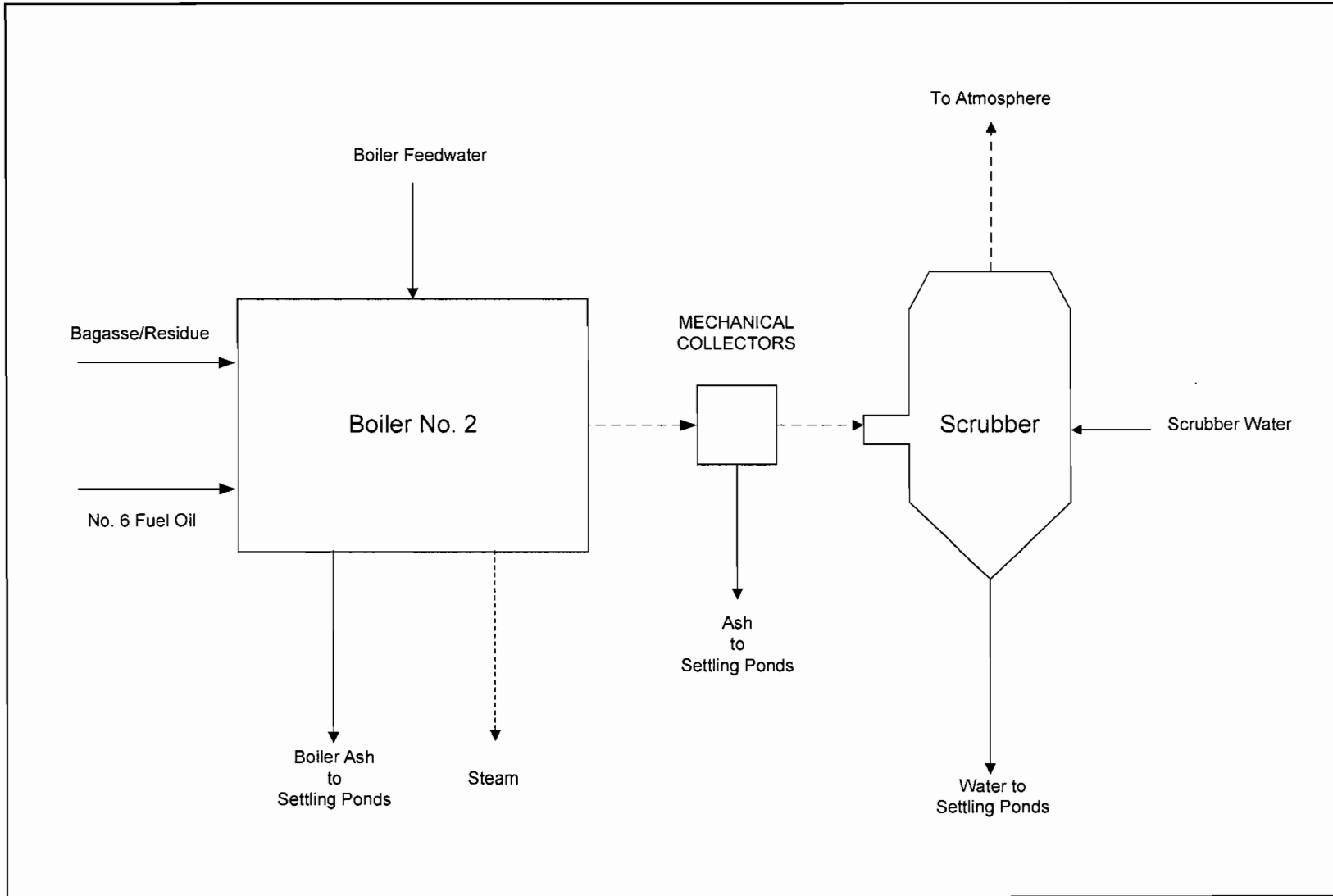
- ^a Activity factor is based on maximum 24-hour steam rate of 138,154 lb/hr.
- ^b Based on 229.7 MMBtu/hr max. heat input from fuel oil combustion and 2.7 MMBtu/hr heat input from bagasse combustion.
- ^c Total emissions of SO₂ from all operating boilers shall not exceed 14 tons per day.
- ^d Based on 229.7 MMBtu/hr max. heat input from fuel oil combustion and 2.4 MMBtu/hr heat input from residue combustion.
- ^e Based on 7,296 hr/yr operation.

Unless otherwise specified, heating values for each fuel used are as follows: 3,600 Btu/lb for wet bagasse, 8,000 Btu/lb dry bagasse, 8,900 Btu/lb for dry residue, and 151,000 Btu/gal for No. 6 fuel oil.

References:

1. Emission factor from permit specific condition (Permit No. 0990026-012-AV).
2. Based on maximum 2.4% fuel sulfur content as specified in Permit No. 0990026-012-AV. No. 6 fuel oil has heat input of 151,000 Btu/gal and density of 8.2 lb/gal. Hourly emissions based on 2 lb SO₂ per lb of S and assuming all sulfur is emitted as SO₂ when firing fuel oil. Calculation: 2.4% sulfur + 151,000 Btu/gal x 8.2 lb/gal x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu = 2.607 lb/MMBtu.
3. Based on industry test data.
4. Emission factor of 47 lb per 1,000 gallon for NO_x due to fuel oil firing, from AP-42 Table 1.3-1. Calculation: 47 lb/1000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.31 lb/MMBtu.
5. Sulfur content of residue assumed to be 0.5% (dry), with 40% removal in wet scrubbers. Calculation: 1/8900 Btu/lb x 0.5% sulfur x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu x 40% scrubber removal efficiency = 0.674 lb/MMBtu.
6. Emission factor of 0.28 lb per 1,000 gallon for VOC due to fuel oil firing, from AP-42 Table 1.3-3. Calculation: 0.28 lb/1000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.00185 lb/MMBtu.

ATTACHMENT GSH-EU2-11
PROCESS FLOW DIAGRAM



Attachment GSH-EU2-I1
Process Flow Diagram

Sugar Cane Growers Cooperative of Florida

Process Area: Boiler No. 2

Process Flow Legend:	
Solid / Liquid	→
Gas	- - - - -
Steam	· · · · ·



ATTACHMENT GSH-EU2-13

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT GSH-EU2-I3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Sugar Cane Growers Cooperative of Florida

Boiler No. 2

Control equipment: One impingement wet scrubber, custom design.

Scrubbing Liquid:	Water
Inlet Water Pressure (psi):	40-100
Pressure Drop across Scrubber (inches H ₂ O):	2-10
Water Flow Rate (gpm):	100-300

ATTACHMENT GSH-EU2-14

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT GSH-EU2-I4 PROCEDURE FOR STARTUP/SHUTDOWN

Sugar Cane Growers Cooperative of Florida

Boiler No. 2

During startup and shutdown of the boilers, excess PM, opacity, NO_x, SO₂, and VOC emissions for more than 2 hours in a 24-hour period are possible. Pursuant to Rule 62-210.700(1), F.A.C., the following procedures and precautions are taken to minimize the magnitude and duration of excess emissions during startup and shutdown of Boiler No. 2. Boiler room foreman and operating personnel have received proper training on emissions control procedures.

STARTUP INSTRUCTIONS

Note: Oil atomization will be provided initially by air until steam is available, for which arrangement must be made to have an air compressor available.

1. Connect hose from the air compressor to the boiler steam trap set located in the atomization steam header to provide oil atomization.
2. Turn on the electric oil heater, and set the temperature on 230°F; set the pressure on 80 psig, or between 80 and 90 psig.
3. Start re-circulating the soil through the system.
4. Open the superheater drains and vents.
5. Open the steam drum vent.
6. Open the drum inlet feed water valve and check valve.
7. Open the valve to drum pressure gauge.
8. Open valve to drum water columns.
9. Open the valve to drum automatic water level.
10. Close the continuous blowdown in tank.
11. Close the chemical feed pump valves.
12. Close the non-return valve and boiler main valve.
13. Close the soot blower header.
14. Close the feed water automatic by-pass valve.

In order to prepare to fire-up the boiler, do the following:

15. Start the ID fan. Keep the ID at -0.2" to -0.3" water.
16. Start the FD fan. Keep the FD at +0.2" water.
17. Start the dust collector.
18. Check the scrubber water level.
19. Turn on the water re-circulation pump.
20. Adjust the FD fan air to burner.
21. Start the burner.
22. Watch the steam drum pressure.

After three or three and a half hours, the steam drum pressure should be about 100 psig.

23. When the steam drum pressure reaches 100 psig, start warming the main header by slowly opening the drum main valve, and do the following:
24. Open valve to main oil burner header.
25. Switch from electric oil heater to steam oil heater, and turn off the electric oil heater.
26. Open valve to steam atomization system.
27. Switch from air atomization to steam atomization.
28. Disconnect compressor air line and turn off the compressor.
29. Open the continuous blowdown line.
30. Open the chemical feed line.
31. Start raising the steam drum pressure at a rate of 100 psig per hour, until the pressure reaches 400 psig.
32. Open the non-return valve to steam header.
33. Open the steam main valve to steam header.

After flow is stabilized, do the following:

34. Close the drum vent.
35. Close the superheater vents
36. Start feeding the boiler with bagasse.
37. The boiler is on-line.

Cold Start-Ups

Cold start-ups should not be made in less than 7 hours from the first fire to normal working pressure of about 400 psig. Normally, a cold start-up will require 7 to 12 hours to complete.

Warm Start-Ups

Warm start-ups with steam and hot water available can be made in less time, typically 2 to 7 hours, depending on the boiler operating conditions.

SHUTDOWN INSTRUCTIONS

1. The feeding of fuel oil and steam to the burners is discontinued.
2. The feeding of carbonaceous fuel to the furnace is discontinued.
3. Water flow to the scrubber is maintained until the ID fans are stopped. This must be done no less than two hours after the shutdown procedure starts.

ATTACHMENT GSH-EU2-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS



Department of Environmental Protection

Jeb Bush
Governor

South District
P.O. Box 2549
Fort Myers, Florida 33902-2549

David B. Struhs
Secretary

PERMITTEE:

Sugar Cane Growers Cooperative of Florida
1500 West Sugar House Road
Belle Glade, Florida 33430-0666

Facility I.D.: 0990026
Permit Number: 0990026-005-AC
Date of Issue: April 28, 2003
Expiration Date: April 28, 2008
County: Palm Beach County
Latitude: 26° 42' 30 " N
Longitude: 80° 39' 00" W
Section/Town/Range: 28/43S/37E
Project: VOC Emission Revisions

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

The applicant, Jose F. Alvarez, Director of Planning and Plant Operations, Sugar Cane Growers Cooperative of Florida applied for a Construction Permit modification on January 15, 2003 to revise and reduce the Volatile Organic Limits (VOCs) for the five process boilers located at the Belle Glade Mill, 1500 West Sugar House Road, Belle Glade, Florida. The following changes have been made to the VOC limits and will be reflected in the following permits associated with this facility for boilers 1-5:

Boiler No 1 #AO50-191721 Boiler No 3 #AO50-191733 Boiler No. 5 #AO50-191737
Boiler No.2 #AO50-191731 Boiler No.4 #AO50-191735

FROM:

Specific Condition 13 Volatile Organic Compound (VOC)

- A. VOC emissions from boilers No. 1,2,3,4, and 5 shall not exceed 1.5 lb/MMBtu.
[Rule 62-296.570(4)(b)6, F.A.C.]

TO:

Specific Condition 13 Volatile Organic Compound (VOC)

- A. VOC emissions from boilers No. 1,2,3,4, and 5 shall not exceed 0.7 lb/MMBtu.
[Rule 62-296.570(4)(b)6, F.A.C., Construction Application 0990026-005 AC dated January 15, 2003]

NOTICE OF PERMIT MODIFICATION
Sugar Cane Growers Cooperative of Florida
DEP File No. 0990026-005 AC
April 28, 2003

All other conditions of DEP permits associated with this facility shall remain the same.

This permit is final agency action unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this Notice of Intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
- (c) A statement of how and when petitioner received notice of the agency action or proposed action;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and
- (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301.

NOTICE OF PERMIT MODIFICATION
Sugar Cane Growers Cooperative of Florida
DEP File No. 0990026-005 AC
April 28, 2003

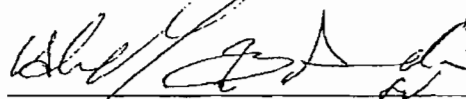
Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Fort Myers, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Richard W. Cantrell
Director of
District Management
Post Office Box 2549
Fort Myers, Florida 33901-2549
(239) 332-6975

RWC/HWY/jw



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT MODIFICATION

January 27, 1996/7

CERTIFIED MAIL # P 482 208 835
RETURN RECEIPT REQUESTED

In the Matter of an Application
for permit by:

Jose F. Alvarez
VP-Planning & Plant Operations
Sugar Cane Growers Cooperative of Florida
Post Office Box 666
Belle Glade, Florida 33430-0666

DEP Files 52/50/0026/01,
52/50/0026/02, 52/50/0026/03,
52/50/0026/04, 52/50/0026/05
DEP Permit Numbers AO50-191721
AO50-191731, AO50-191733,
AO50-191735, AO50-191737
Palm Beach County- AP

The applicant, Sugar Cane Growers Cooperative of Florida, applied on August 15, 1994 to the Department of Environmental Protection for a permit modification to permits AO50-191721, AO50-191731, AO50-191733, AO50-191735, And AO50-191737 for lower RACT emission limits for VOCs and NOx. This also includes changes in testing methods. The following changes (additions) to the permits are hereby entered and are now a part of the permits:

SPECIFIC CONDITION:

13. Volatile Organic Compound (VOC):

- A. VOC emissions from boilers No. 1, 2, 3, 4, and 5 shall not exceed 1.5 lb/MMBtu. [Rule 62-296.570(4)(b)6., F.A.C.]
- B. During each of the 1997-1998 and 1998-1999 sugarcane seasons, the permittee shall conduct a minimum of one set of three (3) test runs for VOC on Boilers No. 1, 2, 3, 4, and 5 using EPA Method 25A, modified to incorporate a sample dilution system as approved by the department.

VOC testing may be done during the 1996-1997 sugarcane season instead of the 1998-1999 season if testing arrangements can be made.
- C. In the event that the series of test runs required by Specific Condition 13.B. above results in VOC emissions in the range of 1.5 to 5.0 lb/MMBtu, The department, at the end of the test series, shall revise the VOC emission limit upwards, not to exceed 5.0 lb/MMBtu as specified by Rule 62-296.570(4)(b)6., F.A.C. During This testing period, the permittee shall make reasonable effort to limit air emissions, and exceedances of the 1.5 lb/MMBtu VOC emission limit stated in Specific Condition 13.A. above shall not constitute a violation.

14. Nitrogen Oxides (NO_x) emissions from Boilers No. 1, 2, 3, 4, and 5 shall not exceed 0.45 lb/MMBtu when burning bagasse or 0.65 lb/MMBtu when burning residue. [Rule 62-296.570(4)(b)6., F.A.C.]

15. These boilers shall be tested for VOC and NO_x during each federal fiscal year (October 1-September 30). Each test run shall be conducted in accordance with 40 CFR 60, Appendix A, using the method indicated. [Rule 62-297.310(7)(a)4., F.A.C.]

A. VOC-EPA Method 25, or EPA Method 25A modified to incorporate a sample dilution system as approved by the Department under the provisions of Rule 652-297.620, F.A.C. If EPA Method 25A is employed, EPA Method 18 may be used to quantify and subtract the methane fraction in the exhaust gases.

B. NO_x-EPA Method 7 or 7E.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with sections 120.569 and 120.57 of the Florida Statutes, or all parties may reach a written agreement on mediation as an alternative remedy under section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for pursuing mediation.

The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any other person must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner; the Department's permit identification number and the county in which the subject matter or activity is located;
- (b) a statement of how and when each petitioner received notice of the Department's action;
- (c) a statement of how each petitioner's substantial interests are affected by the department's action;
- (d) a statement of the material facts disputed by the petitioner, if any;
- (e) a statement of facts that the petitioner contends warrant reversal or modification of the Department's action;
- (f) a statement of which rules or statutes the petitioner contends require reversal or modification of the Department's action; and
- (g) and a statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Any person may elect to pursue mediation by reaching a mediation agreement with all parties to the proceeding (which includes the Department and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Department's action or proposed action. The agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

The agreement to mediate must include the following:

- (a) the names, addresses, and telephone numbers of any persons who may attend the mediation;
- (b) the name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;
- (c) the agreed allocation of the costs and fees associated with the mediation;
- (d) the agreement of the parties on the confidentiality of discussions and documents introduced during mediation;
- (e) the date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;
- (f) the name of each party's representative who shall have authority to settle or recommend settlement;
- (g) either an explanation of how the substantial interests of each mediating party will be affected by the action or proposed action addressed in this action or a statement clearly identifying the petition for hearing that each party has already filed, and incorporating it by reference; and
- (h) the signatures of all parties or their authorized representatives.

As provided in section 120.573 of the Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by section 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above, and must therefore file their petitions within fourteen days of receipt of this notice. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under section 120.569 and 120.57 remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

This action is final and effective on the date filed with the Clerk of the Department unless a petition (or request for mediation) is filed in accordance with the above. Upon the timely filing of a petition (or request for mediation) this order will not be effective until further order of the Department.

Any party to the order has the right to seek judicial review of the order under section 120.68 of the Florida Statutes, by the filing of a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department.

Executed in Fort Myers, Florida.

STATE OF FLORIDA DEPARTMENT
ENVIRONMENTAL PROTECTION

David M. Knowles

David M. Knowles, P.E.
District Air Program Administrator
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881
(941) 458-4211

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on January 27, 1997 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, under section 120.52 (7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

David Buff
(Clerk)

1-27-97
(Date)

DMK/JRS/jw

Copies furnished to:

David Buff, P.E.

ATTACHMENT GSH-EU2-IV3
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT GSH-EU2-IV3
ALTERNATIVE METHODS OF OPERATION

Boiler No. 2 may simultaneously burn four different fuels: bagasse, residue, No. 6 residual oil, and small quantities of on-spec used oil. Small quantities of on-spec used oil contaminated soil that is generated on-site can be burned, as well as small quantities of hazardous materials under the BIF rule. Heat input from bagasse shall not exceed the permitted limit of 334.1 MMBtu/hr (maximum 1-hr average) or 263.8 MMBtu/hr (maximum 24-hr average). Heat input from residue shall not exceed 294.0 MMBtu/hr (maximum 1-hr average) or 232.2 MMBtu/hr (maximum 24-hr average). Heat input from fuel oil and on-spec used oil shall not exceed 229.7 MMBtu/hr and 6.04 MMBtu/hr (40 gallons per hour), respectively.

EMISSIONS UNIT INFORMATION

Section [3]

Boiler No. 3

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [3]

Boiler No. 3

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Description of Emissions Unit Addressed in this Section: Boiler No. 3			
3. Emissions Unit Identification Number: 003			
4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20
8. Federal Program Applicability: (Check all that apply)			
<input type="checkbox"/> Acid Rain Unit			
<input type="checkbox"/> CAIR Unit			
9. Package Unit: Manufacturer:		Model Number:	
10. Generator Nameplate Rating: MW			
11. Emissions Unit Comment: This boiler has a water-cooled, pin-hole grate, and is fired by bagasse, residue, and fuel oil. This emission unit produces steam for use in the production of raw sugar.			

EMISSIONS UNIT INFORMATION

Section [3]

Boiler No. 3

Emissions Unit Control Equipment/Method: Control 1 of 1

1. Control Equipment/Method Description: Impingement Type Wet Scrubber
2. Control Device or Method Code: 115

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [3]

Boiler No. 3

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:
2. Maximum Production Rate: 110,000 lb/hr steam (8-hour average)
3. Maximum Heat Input Rate: 210 million Btu/hr (24-hour average)
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: 24 hours/day 7 days/week 44 weeks/year 7,296 hours/year
6. Operating Capacity/Schedule Comment: The maximum production rate is based on an 8-hour block average. Maximum heat input based on burning bagasse. The maximum heat input rate from residue is 184.8 MMBtu/hr, and the maximum heat input rate from fuel oil is 157 MMBtu/hr, both on a 24-hour block average. Boiler operating pressure and temperature: 400 psig, 585°F. See Attachment GSH-EU3-B6.

EMISSIONS UNIT INFORMATION

Section [3]

Boiler No. 3

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: C (Boiler No. 3)		2. Emission Point Type Code: 1			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:					
5. Discharge Type Code: V		6. Stack Height: 180 feet		7. Exit Diameter: 5.3 feet	
8. Exit Temperature: 150 °F		9. Actual Volumetric Flow Rate: 81,844 acfm		10. Water Vapor: 27 %	
11. Maximum Dry Standard Flow Rate: dscfm			12. Nonstack Emission Point Height: feet		
13. Emission Point UTM Coordinates... Zone: East (km): North (km):			14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)		
15. Emission Point Comment: Stack parameters based on December 2009 test.					

EMISSIONS UNIT INFORMATION

Section [3]
Boiler No. 3

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Bagasse		
2. Source Classification Code (SCC): 1-02-011-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 14.319	5. Maximum Annual Rate: 95,760	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.08, dry	8. Maximum % Ash: 2.6, dry	9. Million Btu per SCC Unit: 16
10. Segment Comment: Maximum hourly tons burned on dry basis, based on 229.1 MMBtu/hr (1-hr average) and a heating value of 8,000 Btu/lb (dry) for bagasse. Maximum annual rate based on 210 MMBtu/hr (24-hour average).		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Solid Waste: Residue		
2. Source Classification Code (SCC): 1-02-012-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 11.326	5. Maximum Annual Rate: 75,747	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.6, dry	8. Maximum % Ash: 8.0, dry	9. Million Btu per SCC Unit: 17.8
10. Segment Comment: Maximum hourly tons burned on a dry basis, based on 201.6 MMBtu/hr (1-hr average) and a heating value of 8,900 Btu/lb (dry) for bagasse residue. Maximum annual based on 184.8 MMBtu/hr (24-hr average).		

EMISSIONS UNIT INFORMATION

Section [3]

Boiler No. 3

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Residual Oil: Grade 6 Oil		
2. Source Classification Code (SCC): 1-02-004-01		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 1.041	5. Maximum Annual Rate: 7,596	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 2.40	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: Based on 157.2 MMBtu/hr (24-hr average) and heating value of 151,000 Btu/gal for No. 6 fuel oil.		

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Liquid Waste: Waste Oil		
2. Source Classification Code (SCC): 1-02-013-02		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 0.04	5. Maximum Annual Rate: 75	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: The used oil is generated solely by the facility, mostly during the repair season. The on-specification used oil is properly stored and burned in the boilers for energy recovery. The amount generated ranges between 50,000 and 75,000 gallons per year.		

EMISSIONS UNIT INFORMATION

Section [3]

Boiler No. 3

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	115		EL
PM10	115		NS
NOX			EL
VOC			EL
SO2	115		EL
CO			NS
Hydrochloric Acid (H106)			NS
PM2.5	115		NS

EMISSIONS UNIT INFORMATION

Section [3]
Boiler No. 3

POLLUTANT DETAIL INFORMATION

Page [1] of [4]
Particulate Matter - PM

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 57.3 lb/hour 191.5 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.25 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly Emissions: Bagasse: 229.1 MMBtu/hr x 0.25 lb/MMBtu = 57.3 lb/hr Fuel Oil: 157.2 MMBtu/hr x 0.10 lb/MMBtu = 15.7 lb/hr Annual Emissions: Bagasse: 210.0 MMBtu/hr x 0.25 lb/MMBtu = 52.5 lb/hr 52.5 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 191.5 TPY Fuel Oil: 157.2 MMBtu/hr x 0.10 lb/MMBtu = 15.7 lb/hr 15.7 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 57.3 TPY See Attachment GSH-EU3-F1.10.			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor and potential emissions based on maximum heat input for carbonaceous fuel burning.			

EMISSIONS UNIT INFORMATION

Section [3]
Boiler No. 3

POLLUTANT DETAIL INFORMATION

Page [1] of [4]
Particulate Matter - PM

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.25 lb/MMBtu	4. Equivalent Allowable Emissions: 57.3 lb/hour 191.5 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-012-AV. Based on bagasse firing only.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.10 lb/MMBtu	4. Equivalent Allowable Emissions: 15.7 lb/hour 57.3 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Rule 62-296.410(1)(b)2, F.A.C. The maximum allowable emissions have been calculated as if only oil were being used at the maximum oil firing rate.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [3]
Boiler No. 3

POLLUTANT DETAIL INFORMATION

Page [2] of [4]
Nitrogen Oxides - NOX

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: NOX		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 131.0 lb/hour 438.2 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.65 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly Emissions: Residue: 201.6 MMBtu/hr x 0.65 lb/MMBtu = 131.0 lb/hr Bagasse: 229.1 MMBtu/hr x 0.45 lb/MMBtu = 103.1 lb/hr Annual Emissions: Residue: 184.8 MMBtu/hr x 0.65 lb/MMBtu = 120.1 lb/hr 120.1 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 438.2 TPY Bagasse: 210.0 MMBtu/hr x 0.45 lb/MMBtu = 94.5 lb/hr 94.5 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 344.7 TPY See Attachment GSH-EU3-F1.10.			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor and potential emissions based on maximum heat input due to residue firing.			

EMISSIONS UNIT INFORMATION

Section [3]
Boiler No. 3

POLLUTANT DETAIL INFORMATION

Page [2] of [4]
Nitrogen Oxides - NOX

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.65 lb/MMBtu	4. Equivalent Allowable Emissions: 131.0 lb/hour 438.2 tons/year
5. Method of Compliance: EPA Method 7 or 7E	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-003-AC dated 10/27/00. Applies when firing bagasse residue.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.45 lb/MMBtu	4. Equivalent Allowable Emissions: 103.1 lb/hour 344.7 tons/year
5. Method of Compliance: EPA Method 7 or 7E	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-003-AC dated 10/27/00. Applies when firing bagasse.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 160.4 lb/hour 536.3 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.70 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly Emissions: Bagasse: $229.1 \text{ MMBtu/hr} \times 0.70 \text{ lb/MMBtu} = 160.4 \text{ lb/hr}$ Annual Emissions: Bagasse: $210.0 \text{ MMBtu/hr} \times 0.70 \text{ lb/MMBtu} = 147.0 \text{ lb/hr}$ $147.0 \text{ lb/hr} \times 7,296 \text{ hr/yr} \div 2,000 \text{ lb/ton} = 536.3 \text{ TPY}$ See Attachment GSH-EU3-F1.10.			
11. Potential, Fugitive, and Actual Emissions Comment: Based on bagasse firing only.			

EMISSIONS UNIT INFORMATION

Section [3]
Boiler No. 3

POLLUTANT DETAIL INFORMATION

Page [3] of [4]
Volatile Organic Compounds - VOC

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.70 lb/MMBtu	4. Equivalent Allowable Emissions: 160.4 lb/hour 536.3 tons/year
5. Method of Compliance: EPA Methods 25A and 18 combined	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-005-AC dated 4/28/03. Based on firing only bagasse. The allowable emission rate of 0.70 lb/MMBtu was requested by permittee pursuant to Rule 62-296.570, F.A.C.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [3]
Boiler No. 3

Page [4] of [4]
Sulfur Dioxide - SO2

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 439.7 lb/hour 1,562.7 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 2.4% sulfur oil Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly Emissions: Fuel Oil: $157.2 \text{ MMBtu/hr} \times 2.607 \text{ lb SO}_2/\text{MMBtu} = 409.8 \text{ lb/hr}$ Remainder Residue: $44.3 \text{ MMBtu/hr} \times 0.674 \text{ lb SO}_2/\text{MMBtu} = 29.9 \text{ lb/hr}$ Total: $409.8 \text{ lb/hr} + 29.9 \text{ lb/hr} = 439.7 \text{ lb/hr}$ Annual Emissions: Fuel Oil: $157.2 \text{ MMBtu/hr} \times 2.607 \text{ lb SO}_2/\text{MMBtu} = 409.8 \text{ lb/hr}$ $409.8 \text{ lb/hr} \times 7,296 \text{ hr/yr} \times \text{ton}/2,000 \text{ lb} = 1,494.8 \text{ TPY}$ Remainder Residue: $27.6 \text{ MMBtu/hr} \times 0.674 \text{ lb SO}_2/\text{MMBtu} = 18.6 \text{ lb/hr}$ $18.6 \text{ lb/hr} \times 7,296 \text{ hr/yr} \times \text{ton}/2,000 \text{ lb} = 67.9 \text{ TPY}$ Total: $1,494.8 \text{ TPY} + 67.9 \text{ TPY} = 1,562.7 \text{ TPY}$ See Attachment GSH-EU3-F1.10.			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor represents fuel oil firing only. Potential emissions based on combination of residue and fuel oil firing.			

EMISSIONS UNIT INFORMATION

Section [3]
Boiler No. 3

POLLUTANT DETAIL INFORMATION

Page [4] of [4]
Sulfur Dioxide - SO2

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 2.4% sulfur oil	4. Equivalent Allowable Emissions: 409.8 lb/hour 1,494.8 tons/year
5. Method of Compliance: Fuel oil analysis	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on fuel oil burning only.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [3]

Boiler No. 3

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE30	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 30 % Exceptional Conditions: 40 % Maximum Period of Excess Opacity Allowed: 2 min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Rule 62-296.410(1)(b)1, F.A.C.	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [3]

Boiler No. 3

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 3

1. Parameter Code: PRS	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Foxboro Model Number: IDP10-TS1B01F Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures total pressure drop across wet scrubber.	

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 8711TSA040R1N061 Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures inlet water flow to the wet scrubber.	

EMISSIONS UNIT INFORMATION

Section [3]

Boiler No. 3

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor 3 of 3

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 1151DP4	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures steam flow on Boiler No. 3.	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

Section [3]

Boiler No. 3

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU3-I1 <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU1-I2 <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU3-I3 <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU3-I4 <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT GSH-EU3-B6

MAXIMUM FUEL USAGE AND HEAT INPUT RATES

Attachment GSH-EU3-F1.10a. Maximum Hourly Emissions of Regulated Pollutants
Boiler No. 3, SCGCF, Belle Glade

Regulated Pollutant	Bagasse			Residue			Fuel oil			Max Fuel Oil, Remainder Bagasse	Max Fuel Oil, Remainder Residue	Highest Hourly Emission Rate (lb/hr)			
	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)		Hourly Emissions (lb/hr)	Hourly Emissions ^b (lb/hr)	Hourly Emissions ^d (lb/hr)
Particulate (PM)	0.25	1	229.1	57.3	0.25	1	201.6	50.4	0.10	1	157.2	15.7	28.3	26.8	57.3
Sulfur dioxide	0.06	3	229.1	13.7	0.674	5	201.6	135.9	2.607	2	157.2	409.8	412.8	439.7	439.7 ^c
Nitrogen oxides	0.45	1	229.1	103.1	0.65	1	201.6	131.0	0.31	4	157.2	48.7	71.4	77.6	131.0
VOC	0.70	1	229.1	160.4	0.70	1	201.6	141.1	0.00185	6	157.2	0.3	35.6	31.4	160.4

Footnotes:

- ^a Activity factor is based on permitted maximum heat input rate, equivalent to 120,000 lb/hr steam.
- ^b Based on 157.2 MMBtu/hr max. heat input from fuel oil combustion and 50.4 MMBtu/hr heat input from bagasse combustion.
- ^c Total emissions of SO₂ from all operating boilers shall not exceed 14 tons per day.
- ^d Based on 157.2 MMBtu/hr max. heat input from fuel oil combustion and 44.3 MMBtu/hr heat input from residue combustion.

Unless otherwise specified, heating values for each fuel used are as follows: 3,600 Btu/lb for wet bagasse, 8,000 Btu/lb dry bagasse, 8,900 Btu/lb for dry residue, and 151,000 Btu/gal for No. 6 fuel oil.

References:

1. Emission factor from permit specific condition (Permit No. 0990026-012-AV).
2. Based on maximum 2.4% fuel sulfur content as specified in Permit No. 0990026-012-AV. No. 6 fuel oil has heat input of 151,000 Btu/gal and density of 8.2 lb/gal. Hourly emissions based on 2 lb SO₂ per lb of S and assuming all sulfur is emitted as SO₂ when firing fuel oil. Calculation: 2.4% sulfur + 151,000 Btu/gal x 8.2 lb/gal x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu = 2.607 lb/MMBtu.
3. Based on industry test data.
4. Emission factor of 47 lb per 1,000 gallons for NO_x due to fuel oil firing, from AP-42 Table 1.3-1. Calculation: 47 lb/1000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.31 lb/MMBtu.
5. Sulfur content of residue assumed to be 0.5% (dry), with 40% removal in wet scrubbers. Calculation: 1/8900 Btu/lb x 0.5% sulfur x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu x 40% scrubber removal efficiency = 0.67 lb/MMBtu.
6. Emission factor of 0.28 lb per 1,000 gallons for VOC due to fuel oil firing, from AP-42 Table 1.3-3. Calculation: 0.28 lb/1000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.00185 lb/MMBtu.



Attachment GSH-EU3-F1.10b. Maximum Annual Emissions of Regulated Pollutants
Boiler No. 3, SCGCF, Belle Glade

Regulated Pollutant	Bagasse			Residue			Fuel oil			Max Fuel Oil, Remainder Bagasse Annual Emissions (TPY) ^{b, e}	Max Fuel Oil, Remainder Residue Annual Emissions (TPY) ^{d, e}	Highest Annual Emission Rate ^e (TPY)			
	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Annual Emissions (TPY) ^e	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Annual Emissions (TPY) ^e	Emission Factor (lb/MMBtu)				Ref	Activity Factor ^a (MMBtu/hr)	Annual Emissions (TPY) ^e
Particulate (PM)	0.25	1	210.0	191.5	0.25	1	184.8	168.5	0.10	1	157.2	57.3	85.9	82.5	191.5 ^c
Sulfur dioxide	0.06	3	210.0	46.0	0.674	5	184.8	454.5	2.607	2	157.2	1,494.8	1,501.7	1,562.7	1,562.7
Nitrogen oxides	0.45	1	210.0	344.7	0.65	1	184.8	438.2	0.31	4	157.2	177.8	229.2	243.2	438.2
VOC	0.70	1	210.0	536.3	0.70	1	184.8	471.9	0.00185	6	157.2	1.1	81.0	71.5	536.3

Notes:

- ^a Activity factor is based on maximum permitted steam rate of 110,000 lb/hr, 8-hour block average.
- ^b Based on 157.2 MMBtu/hr max. heat input from fuel oil combustion and 31.3 MMBtu/hr heat input from bagasse combustion.
- ^c Total emissions of SO₂ from all operating boilers shall not exceed 14 tons per day.
- ^d Based on 157.2 MMBtu/hr max. heat input from fuel oil combustion and 27.5 MMBtu/hr heat input from residue combustion.
- ^e Based on 7,296 hr/yr operation.

Unless otherwise specified, heating values for each fuel used are as follows: 3,600 Btu/lb for wet bagasse, 8,000 Btu/lb dry bagasse, 8,900 Btu/lb for dry residue, and 151,000 Btu/gal for No. 6 fuel oil.

References:

1. Emission factor from permit specific condition (Permit No. 0990026-012-AV).
2. Based on maximum 2.4% fuel sulfur content as specified in Permit No. 0990026-012-AV. No. 6 fuel oil has heat input of 151,000 Btu/gal and density of 8.2 lb/gal. Hourly emissions based on 2 lb SO₂ per lb of S and assuming all sulfur is emitted as SO₂ when firing fuel oil. Calculation: 2.4% sulfur ÷ 151,000 Btu/gal × 8.2 lb/gal × 2 lb SO₂/lb S × 10⁶ Btu/MMBtu = 2.607 lb/MMBtu.
3. Based on industry test data.
4. Emission factor of 47 lb per 1,000 gallon for NO_x due to fuel oil firing, from AP-42 Table 1.3-1. Calculation: 47 lb/1000 gal ÷ 151,000 Btu/gal × 10⁶ Btu/MMBtu = 0.31 lb/MMBtu.
5. Sulfur content of residue assumed to be 0.5% (dry), with 40% removal in wet scrubbers. Calculation: 1/8900 Btu/lb × 0.5% sulfur × 2 lb SO₂/lb S × 10⁶ Btu/MMBtu × 40% scrubber removal efficiency = 0.67 lb/MMBtu.
6. Emission factor of 0.28 lb per 1,000 gallon for VOC due to fuel oil firing, from AP-42 Table 1.3-3. Calculation: 0.28 lb/1000 gal ÷ 151,000 Btu/gal × 10⁶ Btu/MMBtu = 0.00185 lb/MMBtu.

ATTACHMENT GSH-EU3-F1.10
CALCULATION OF EMISSIONS

**Attachment GSH-EU3-B6a. Maximum Hourly Heat Input and Fuel Usage Rates
Boiler No. 3, SCGCF, Belle Glade**

Fuel	Heat Transfer			Fuel Firing Rate
	Heat Input to Boiler	Efficiency %	Heat Output to Steam	
	Maximum Short-Term			
	(MMBtu/hr)		(MMBtu/hr)	
Bagasse	229.1	55.0	126.0	14.32 tons/hr ^a
Residue	201.6	62.5	126.0	11.33 tons/hr ^b
No. 6 Fuel Oil	157.2	62.5	98.3	1,041 gal/hr
<u>Max fuel firing + bagasse</u>				
Bagasse	50.5	55.0	27.8	3.15 tons/hr ^a
Residue	0	62.5	0	0 tons/hr ^b
No. 6 Fuel Oil	157.2	62.5	98.3	1,041 gal/hr
Total	207.7		126.0	
<u>Max fuel firing + Residue</u>				
Bagasse	0	55.0	0	0 tons/hr ^a
Residue	44.4	62.5	27.8	2.49 tons/hr ^b
No. 6 Fuel Oil	157.2	62.5	98.3	1,041 gal/hr
Total	202		126.0	

^a Based on bagasse firing.

^b Based on residue firing.

Notes:

Total steam production required = 120,000 lb/hr.

Net steam enthalpy = 1,050 Btu/lb.

Total heat output to steam = 120,000 lb/hr steam x 1,050 Btu/lb = 126.0 MMBtu/hr.

Fuels may be burned in combination, not to exceed total heat outputs.

Based on fuel heating values as follows:

Bagasse, dry - 8,000 Btu/lb

Residue, dry - 8,900 Btu/lb

No. 6 Fuel Oil - 151,000 Btu/gal

**Attachment GSH-EU3-B6b. Maximum 24-Hour and Annual Heat Input and Fuel Usage Rates
Boiler No. 3, SCGCF, Belle Glade**

Fuel	Heat Transfer			Fuel Firing Rate	
	Heat Input to Boiler	Efficiency %	Heat Output to Steam	24-Hour	Annual
	Maximum 24-Hour				
	(MMBtu/hr)		(MMBtu/hr)		
Bagasse	210.0	55.0	115.50	13.13 tons/hr ^a	95,760.0 TPY ^a
Residue	184.8	62.5	115.50	10.38 tons/hr ^b	75,747.2 TPY ^b
No. 6 Fuel Oil	157.2	62.5	98.25	1,041 gal/hr	7,595,571 gal/yr
<u>Max fuel firing + bagasse</u>					
Bagasse	31.36	55.0	17.25	1.96 tons/hr ^a	14,301.8 TPY ^a
Residue	0.00	62.5	0.00	0.00 tons/hr ^b	0.0 TPY ^b
No. 6 Fuel Oil	157.2	62.5	98.25	1,041 gal/hr	7,595,571 gal/yr
Total	188.6		115.5		
<u>Max fuel firing + Residue</u>					
Bagasse	0.00	55.0	0.00	0.00 tons/hr ^a	0.0 TPY ^a
Residue	27.60	62.5	17.25	1.55 tons/hr ^b	11,312.9 TPY ^b
No. 6 Fuel Oil	157.2	62.5	98.25	1,041 gal/hr	7,595,571 gal/yr
Total	184.80		115.5		

^a Based on bagasse firing.

^b Based on residue firing.

Notes:

Total steam production required = 110,000 lb/hr.

Net steam enthalpy = 1,050 Btu/lb.

Total heat output to steam = 110,000 lb/hr steam x 1,050 Btu/lb = 115.5 MMBtu/hr.

Fuels may be burned in combination, not to exceed total heat outputs.

Based on fuel heating values as follows:

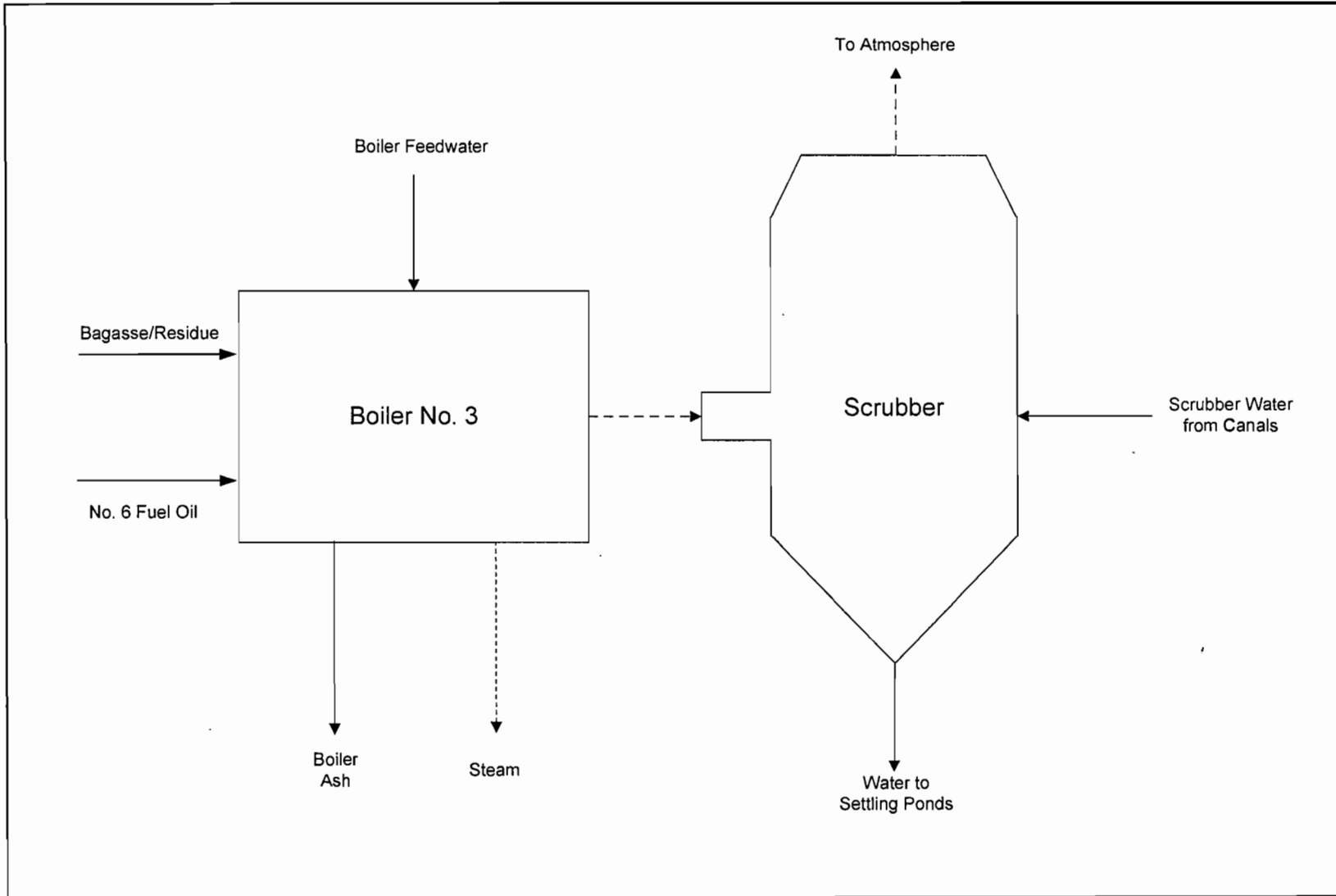
Bagasse, dry - 8,000 Btu/lb

Residue, dry - 8,900 Btu/lb

No. 6 Fuel Oil - 151,000 Btu/gal



ATTACHMENT GSH-EU3-11
PROCESS FLOW DIAGRAM



Attachment GSH-EU3-I1
Process Flow Diagram

Sugar Cane Growers Cooperative of Florida

Process Area: Boiler No. 3

Process Flow Legend:	
Solid / Liquid	→
Gas	- - - - ->
Steam	- · - · - ·>



ATTACHMENT GSH-EU3-13

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT GSH-EU3-I3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Sugar Cane Growers Cooperative of Florida
Boiler No. 3

Control equipment: One impingement wet scrubber.

Scrubbing Liquid:	Water
Inlet Water Pressure (psi):	40-100
Pressure Drop across Scrubber (inches H ₂ O):	2-10
Water Flow Rate (gpm):	100-300

ATTACHMENT GSH-EU3-14
PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT GSH-EU3-I4 PROCEDURE FOR STARTUP/SHUTDOWN

Sugar Cane Growers Cooperative of Florida

Boiler No. 3

During startup and shutdown of the boilers, excess PM, opacity, NO_x, SO₂, and VOC emissions for more than 2 hours in a 24-hour period are possible. Pursuant to Rule 62-210.700(1), F.A.C., the following procedures and precautions are taken to minimize the magnitude and duration of excess emissions during startup and shutdown of Boiler No. 3. Boiler room foreman and operating personnel have received proper training on emissions control procedures.

STARTUP INSTRUCTIONS

Note: Oil atomization will be provided initially by air until steam is available, for which arrangement must be made to have an air compressor available.

1. Connect hose from the air compressor to the boiler steam trap set located in the atomization steam header to provide oil atomization.
2. Turn on the electric oil heater, and set the temperature on 230°F; set the pressure on 80 psig, or between 80 and 90 psig.
3. Start re-circulating the soil through the system.
4. Open the superheater drains and vents.
5. Open the steam drum vent.
6. Open the drum inlet feed water valve and check valve.
7. Open the valve to drum pressure gauge.
8. Open valve to drum water columns.
9. Open the valve to drum automatic water level.
10. Close the continuous blowdown in tank.
11. Close the chemical feed pump valves.
12. Close the non-return valve and boiler main valve.
13. Close the soot blower header.
14. Close the feed water automatic by-pass valve.

In order to prepare to fire-up the boiler, do the following:

15. Start the ID fan. Keep the ID at -0.2" to -0.3" water.
16. Start the FD fan. Keep the FD at +0.2" water.
17. Start the dust collector.
18. Check the scrubber water level.
19. Turn on the water re-circulation pump.
20. Adjust the FD fan air to burner.
21. Start the burner.
22. Watch the steam drum pressure.

After three or three and a half hours, the steam drum pressure should be about 100 psig.

23. When the steam drum pressure reaches 100 psig, start warming the main header by slowly opening the drum main valve, and do the following:
24. Open valve to main oil burner header.
25. Switch from electric oil heater to steam oil heater, and turn off the electric oil heater.
26. Open valve to steam atomization system.
27. Switch from air atomization to steam atomization.
28. Disconnect compressor air line and turn off the compressor.
29. Open the continuous blowdown line.
30. Open the chemical feed line.
31. Start raising the steam drum pressure at a rate of 100 psig per hour, until the pressure reaches 400 psig.
32. Open the non-return valve to steam header.
33. Open the steam main valve to steam header.

After flow is stabilized, do the following:

34. Close the drum vent.
35. Close the superheater vents
36. Start feeding the boiler with bagasse.
37. The boiler is on-line.

Cold Start-Ups

Cold start-ups should not be made in less than 7 hours from the first fire to normal working pressure of about 400 psig. Normally, a cold start-up will require 7 to 12 hours to complete.

Warm Start-Ups

Warm start-ups with steam and hot water available can be made in less time, typically 2 to 7 hours, depending on the boiler operating conditions.

SHUTDOWN INSTRUCTIONS

1. The feeding of fuel oil and steam to the burners is discontinued.
2. The feeding of carbonaceous fuel to the furnace is discontinued.
3. Water flow to the scrubber is maintained until the ID fans are stopped. This must be done no less than two hours after the shutdown procedure starts.

ATTACHMENT GSH-EU3-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS

GSH - E03 - N1

NOTICE OF PERMIT MODIFICATION

April 28, 2003

CERTIFIED MAIL 7001 2510 0001 8815 0294
RETURN RECEIPT REQUESTED

In the Matter of an
Application for Permit by:

Mr. Jose F. Alvarez
Planning and Plant Operations.
Sugar Cane Growers Cooperative of Florida
1500 West Sugar House Road
Belle Glade, Florida 33430-0666

Palm Beach County - AP
Belle Glade Mill
DEP File No. 0990026-005 AC

Enclosed is Permit Number 0990026-005-AC to revise and reduce the previous emissions limits for Volatile Organic Compounds (VOCs) for boilers 1-5 at the Belle Glade Mill located at 1500 West Sugar House Road, Belle Glade, Florida 33430-0666. This permit is issued pursuant to Section(s) 403.087, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Fort Myers, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Richard W. Cantrell
Director of District Management
Post Office Box 2549
Fort Myers, Florida 33902-2549
(239) 332-6975

NOTICE OF PERMIT MODIFICATION
Sugar Cane Growers Cooperative of Florida
DEP File No. 0990026-005 AC
April 28, 2003

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed before the close of business on _____ to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(7),
Florida Statutes, with the designated Department
Clerk, receipt of which is hereby acknowledged.

(Clerk)

(Date)

RWC/RDB/jw

Copy furnished to David A. Buff, P.E., Golder Associates, Inc.

PERMITTEE:
Sugar Cane Growers Cooperative of Florida
1500 West Sugar House Road
Belle Glade, Florida 33430-0666

Facility I.D.: 0990026
Permit Number: 0990026-005-AC
Date of Issue: April 28, 2003
Expiration Date: April 28, 2008
County: Palm Beach County
Latitude: 26° 42' 30" N
Longitude: 80° 39' 00" W
Section/Town/Range: 28/43S/37E
Project: VOC Emission Revisions

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

The applicant, Jose F. Alvarez, Director of Planning and Plant Operations, Sugar Cane Growers Cooperative of Florida applied for a Construction Permit modification on January 15, 2003 to revise and reduce the Volatile Organic Limits (VOCs) for the five process boilers located at the Belle Glade Mill, 1500 West Sugar House Road, Belle Glade, Florida. The following changes have been made to the VOC limits and will be reflected in the following permits associated with this facility for boilers 1-5:
Boiler No 1 #AO50-191721 Boiler No 3 #AO50-191733 Boiler No. 5 #AO50-191737
Boiler No.2 #AO50-191731 Boiler No.4 #AO50-191735

FROM:

Specific Condition 13 Volatile Organic Compound (VOC)

- A. VOC emissions from boilers No. 1,2,3,4, and 5 shall not exceed 1.5 lb/MMBtu.
[Rule 62-296.570(4)(b)6, F.A.C.]

TO:

Specific Condition 13 Volatile Organic Compound (VOC)

- A. VOC emissions from boilers No. 1,2,3,4, and 5 shall not exceed 0.7 lb/MMBtu.
[Rule 62-296.570(4)(b)6, F.A.C., Construction Application 0990026-005 AC dated January 15, 2003]

NOTICE OF PERMIT MODIFICATION
Sugar Cane Growers Cooperative of Florida
DEP File No. 0990026-005 AC
April 28, 2003

All other conditions of DEP permits associated with this facility shall remain the same.

This permit is final agency action unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this Notice of Intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301.

NOTICE OF PERMIT MODIFICATION
Sugar Cane Growers Cooperative of Florida
DEP File No. 0990026-005 AC
April 28, 2003

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Fort Myers, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Richard W. Cantrell
Director of
District Management
Post Office Box 2549
Fort Myers, Florida 33901-2549
(239) 332-6975

RWC/HWY/jw



Jeb Bush
Governor

Department of Environmental Protection

South District
P.O. Box 2549
Fort Myers, Florida 33902-2549

David B. Struhs
Secretary

NOTICE OF ADMINISTRATIVELY CORRECTED CONSTRUCTION PERMIT

March 12, 2001

CERTIFIED MAIL 7000 0600 0024 1469 9743
RETURN RECEIPT REQUESTED

In the matter of a Request for
Administrative Correction Permit by:

Mr. Jose F. Alvarez, Sr., P.E.
Vice President Planning and Plant Operations
Sugar Cane Growers Cooperative of Florida
Post Office Box 666
Belle Glade, Florida 33430-0666

Palm Beach County - AP
Permit No.: 0990026-003 -AC
Glades Sugar House
Everglades Agricultural Area Sub EMA

Enclosed are administratively corrected pages to construction permit-0990026-003-AC for Boiler Number 3 at Sugar Cane Growers Cooperative of Florida located at West Sugar House Road, one-half mile north of Airport Road, Belle Glade, in Palm Beach County, Florida. This correction is issued pursuant to Rule 62-210.360, Florida Administrative Code and Chapter 403, Florida Statutes, (F.S.). The changes to Specific Condition Number 2. are made at the applicant's request dated February 22, 2001. The change to Specific Condition Number 5. is made to address an objection by the U. S. Environmental Protection Agency (EPA) dated September 11, 2000. This corrective action does not alter the effective dates of the existing permit.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal under Rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within thirty (30) days from the date this notice is filed with the Clerk of the permitting authority.

MAR 14 2001

Page 1 of 2

"More Protection, Less Process"

Printed on recycled paper.

ADMINISTRATIVE PERMIT CORRECTION
Permit No. 0990026-003-AC
Sugar Cane Growers Cooperative of Florida
Boiler No. 3
March 12, 2001

Executed in Fort Myers, Florida.

Sincerely,

Richard W. Cantrell

Richard W. Cantrell
Director of
District Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF ADMINISTRATIVELY CORRECTED PERMIT (including the corrected page(s)) was sent by certified mail (*) and copies were mailed by U. S. Mail before the close of business on March 12, 2001 to the listed person(s) listed or as otherwise noted:

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Janice Steep 3-12-01
(Clerk) (Date)

RWC/DMK/jw

Enclosures

Copies furnished to:

David Buff, P.E., Golder Associates, Inc.
Jeff Koerner, P.E., DEP, Tallahassee
Martha Nebelsiek, Esquire, DEP - OGC
Kathy Durrell, SCGC
Angela Morrison, HBGS
Palm Beach County Health Department

ADMINISTRATIVE PERMIT CORRECTION

Permit No. 0990026-003-AC

Sugar Cane Growers Cooperative of Florida

Boiler No. 3

March 12, 2001

Specific Condition No. 2. Is hereby changed From:

2. Permitted Capacity - The maximum steam production rate is 100,000 pounds per hour (24 hour average) at the design operating conditions of 400 psig and 585°F (or thermodynamically equivalent). The maximum heat input from bagasse or bagasse and other fuels shall be 229 MMBtu/hr. Maximum heat input from residue shall be 201 MMBtu/hr, and from fuel oil shall be 157 MMBtu/hr (24-hour average).

[Rules 62-4.160(2), 62-210.200 (PTE), F.A.C., and Permit Application dated August 8, 2000]

To:

2. Permitted Capacity - The maximum steam production rate is 110,000 pounds per hour (8-hour block average) at the design operating conditions of 400 psig and 585°F (or thermodynamic equivalent). The maximum heat input from bagasse or bagasse and other fuels shall be 229 MMBtu/hr. The maximum heat input from residue shall be 201 MMBtu/hr and from fuel oil shall be 157 MMBtu/hr (24-hour block average).

[Rules 62-4.160(2), 62-210.200(PTE), F.A.C.]

Specific Condition 5. Is hereby changed From:

5. Visible Emissions - Number 1.5 on the Ringelmann Chart (30 percent opacity) except that a density of Ringelmann Number 2 (40 percent opacity) is permissible for not more than two minutes in any one hour. (Visible emission limits for emissions units equipped with wet scrubbers shall be effective only if the visible emission measurement can be made without being substantially affected by plume mixing or moisture condensation.)

[Rule 62-296.410(1)(b)1., F.A.C.]

To:

5. Visible Emissions - Number 1.5 on the Ringelmann Chart (30 percent opacity) except that a density of Ringelmann Number 2 (40 percent opacity) is permissible for not more than two minutes in any one hour.

[Rule 62-296.410(1)(b)1., F.A.C.]



Jeb Bush
Governor

Department of Environmental Protection

South District
P.O. Box 2549
Fort Myers, Florida 33902-2549

David B. Struhs
Secretary

PERMITTEE:

Sugar Cane Growers Cooperative of Florida
Post Office Box 666
Belle Glade, Florida 33430-0666

Facility I.D.: 0990026
Permit Number: 0990026-003-AC
Date of Issue: October 27, 2000
Expiration Date: October 27, 2005
County: Palm Beach
Latitude: 26° 42' 06" N
Longitude: 80° 36' 57" W
Section/Town/Range: 28/ 43 S/ 37 E
Project: Glades Sugar House
Boiler No. 3

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Replacement of the dumping grate by a water-cooled pinhole grate, and the addition of two small fans to adjust the underfired air and overfired air fans. The latter is to change the ratio of overfired to underfired from approximately 20%/80% to a range where the overfire air is greater than the underfire air. This should result in more complete combustion and better heat recovery.

Pertinent Documents

Application for Title V Permit
Construction Permit Application
Memorandum from Jeff Koerner, PE, BAR
Letter of objection from D. Buff, PE, Golder Associates

Dated

June 17, 1996
August 8, 2000
July 21, 2000
October 23, 2000

PERMITTEE:
Sugar Cane Growers Cooperative of Florida
Glades Sugar House
Boiler No. 3

Facility ID. No.: 0990026
Permit Number: 0990026-003-AC
Date of Issue: October 27, 2000
Expiration Date: October 27, 2005

SPECIFIC CONDITIONS:

1. The permit applies to the following Emission Unit:

E.U.

ID No. Brief Description

-003 Boiler No. 3

Boiler No. 3 is fired with carbonaceous fuel (bagasse and residue) and fuel oil. It is to be converted from a dumping grate to a water-cooled pinhole grate.

Particulate emissions are controlled by a Joy Turbulaire Impingement Type D, Model 64 wet scrubber.

{Permitting note(s): This emission unit is regulated under Rule 62-210.200, F.A.C. (Definitions: (60,61) Carbonaceous Fuel; (228) Potential to Emit); Rule 62-213.440(1)(b), F.A.C. (Periodic Monitoring); Rule 62-296.570, F.A.C. (Reasonably Available Control Technology for NO_x and VOC; Rule 62-296.410, F.A.C. (Carbonaceous Fuel Burning Equipment.))

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

2. **Permitted Capacity** - The maximum steam production rate is 110,000 pounds per hour (8-hour block average) at the design operating conditions of 400 psig and 585°F (or thermodynamically equivalent). The maximum heat input from bagasse or bagasse and other fuels shall be 229 MMBtu/hr. Maximum heat input from residue shall be 201 MMBtu/hr, and from fuel oil shall be 157 MMBtu/hr (24-hour block average).

[Rules 62-4.160(2), 62-210.200(PTE), F.A.C.]

3. **Methods of Operation** - Boiler No. 3 is fired with carbonaceous fuel (bagasse and residue), No. 6 residual oil, and small quantities of used oil. Small quantities of on-spec oil contaminated soil that is generated on-site can be burned, as well as small quantities of hazardous materials under the BIF rule.

[Rule 62-213.410, F.A.C.]

4. **Hours of Operation**. The hours of operation for this emissions unit shall not exceed 7296 hours/year. The Department shall be notified if this boiler is operated between 16 April and 12 October, and the justification for operating the boiler.

[Rules 62-4.160(2), 62-210.200(PTE), F.A.C., and AC50-42476/PSD-FL-077]

PERMITTEE:
Sugar Cane Growers Cooperative of Florida
Glades Sugar House
Boiler No. 3

Facility ID. No.: 0990026
Permit Number: 0990026-003-AC
Date of Issue: October 27, 2000
Expiration Date: October 27, 2005

SPECIFIC CONDITIONS:

Emission Limitations and Standards

5. **Visible Emissions** - Number 1.5 on the Ringelmann Chart (30 percent opacity) except that a density of Ringelmann Number 2 (40 percent opacity) is permissible for not more than two minutes in any one hour.
[Rule 62-296.410(1)(b)1., F.A.C.]
6. **Particulate Matter** - 0.25 pounds per million Btu of heat input of carbonaceous fuel plus 0.1 pounds per million Btu heat input of fossil fuel.
[AC50-42476\PSD-FL-077 dated 11/28/81]
7. **Volatile Organic Compounds (VOC)** - Emissions of VOC from Boiler No. 3 shall not exceed 1.5 pounds per million Btu heat input.
[Rule 62-296.570, F.A.C., Rule 62-296.570(2), F.A.C., voluntary limit proposed by permittee, and AO50-191733 permit amendment dated 1/27/97]
8. **Nitrogen Oxides (NO_x)** - Emissions of NO_x from Boiler No. 3 shall not exceed 0.45 pounds per million Btu heat input while burning bagasse, and 0.65 pounds per million Btu heat input from residue.
[Rule 62-296.570(4)(b)6., F.A.C., voluntary limit proposed by permittee, and AO50-191733 permit amendment dated 1/27/97]
9. **Sulfur Dioxide (SO₂)** - Total SO₂ emissions from all operating boilers shall not exceed 14 tons per day. Fuel oil to Boilers No. 1 through No. 5 shall be monitored every 8 hours with either individual fuel feed meters, or a common fuel meter on the tank. Boiler No. 8 has a dedicated fuel feed meter and is logged separately.
[AC50-42476\PSD-FL-077 dated 11/28/81]
10. **Sulfur Dioxide (SO₂)** - Boiler No. 3 is permitted to burn No.6 (residual) fuel oil and on spec used oil with a maximum sulfur content of 2.4% by weight.
[Construction permit AC50-2045A dated 2/10/75]
11. Compliance with the emission limits shall be determined by assuming a thermal efficiency of 55 percent for Boiler No. 3 while burning bagasse. Thermal efficiency while burning residue or fuel oil shall be assumed to be 62.5 percent.

PERMITTEE:
Sugar Cane Growers Cooperative of Florida
Glades Sugar House
Boiler No. 3

Facility ID. No.: 0990026
Permit Number: 0990026-003-AC
Date of Issue: October 27, 2000
Expiration Date: October 27, 2005

SPECIFIC CONDITIONS:

Test Methods and Procedures

12. This emission unit shall be tested within 90 days of completion of construction for the following pollutants:

1. Visible emissions, VE
2. Particulate matter, PM
3. Nitrogen Oxides, NO_x
4. Carbon Monoxide CO
5. Volatile Organic Compounds, VOC

[Rule 62-4.070(3), F.A.C. (reasonable assurance)]

13. During the compliance test in **Specific Condition 12**, a record shall be made of the scrubber gas pressure drop, water pressure, and water flow rate to the scrubber. These values shall be established as a surrogate for particulate compliance. These values shall remain in effect until such time as another compliance test indicates different values.

[Rule 62-4.070(3), F.A.C. (reasonable assurance), and Rule 62-213.440(1)(b), F.A.C. (Periodic Monitoring)]

14. **Annual Compliance Tests.** During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emission unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants;
Particulate Matter, PM;
Nitrogen Oxides, NO_x;
Volatile Organic Compounds, VOC.

[Rule 62-297.310(7)(a)4., F.A.C., Rule 62-4.070(3), F.A.C. (reasonable assurance), and Rule 62-213.440(1)(b), F.A.C. (Periodic Monitoring)]

15. All visible emissions tests performed pursuant to the requirements of this permit shall comply with the following provisions:

- a. The test method for visible emissions shall be EPA Reference Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
- b. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
[Rule 62-296.320(4)(b)4.a., F.A.C.]
- c. The required minimum period of observation for an EPA Reference Method 9 compliance test shall be sixty (60) minutes. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.
[Rule 62-297.310(4) (a) 2., F.A.C.]

PERMITTEE:
Sugar Cane Growers Cooperative of Florida
Glades Sugar House
Boiler No. 3

Facility ID. No.: 0990026
Permit Number: 0990026-003-AC
Date of Issue: October 27, 2000
Expiration Date: October 27, 2005

SPECIFIC CONDITIONS:

16. Compliance test for particulate matter emissions shall be determined using EPA Reference Methods 1, 2, 3, 4, and 5, described in 40 CFR 60, Appendix A. Emissions units incorporating a scrubber for control of particulate matter shall use an acetone wash.

[Rule 62-297.401(1 through 5), F.A.C.]

17. For this facility, compliance with fuel oil sulfur limits may be determined based on:

A) certification from the fuel supplier.

where

Fuel supplier certification shall include the following information:

(i) The name of the oil supplier; and

(ii) A statement from the oil supplier listing the actual sulfur content of the oil and the place where the sample was collected., or

[Rule 62-297.310(7)(c), F.A.C.]

B) Based on analysis by one of the following methods: ASTM Method D 129-91, D 1552, D2622-94, D 4294-90, or comparable Department approved method.

[Rule 62-297.310(7)(c), F.A.C.]

18. **On-Site Generated Used-Oil** - shall be accumulated alternately in one of two tanks.

When a tank is full the second tank will be used and the first shall be analyzed for: heating value as generated (Btu/lb), arsenic, cadmium, chromium, lead, total halogens, and flash point using DEP or ASTM approved methods. If the oil meets the specifications of 40 CFR 279.11 it can be blended in with the residual oil for boiler feed.

19. Compliance test for nitrogen oxide emissions shall be determined using EPA Reference Method 7 or 7E, described in 40 CFR 60, Appendix A.

[Rule 62-297.401(7), F.A.C., Rule 62-296.570, F.A.C., and AO50-191733 amendment dated 1/27/97]

20. Carbon monoxide emissions shall be determined using EPA Reference Method 10, described in 40 CFR 60, Appendix A.

[Rule 62-297.401(10), F.A.C.]

21. Compliance test for volatile organic compounds emissions shall be determined using EPA Reference Methods 25, or 25A, modified to incorporate a dilution system as approved by the Department under the provisions of Rule 62-297.620, F.A.C. If EPA Method 25A is employed, EPA Reference Method 18 may be used to quantify and subtract the methane fraction in the exhaust gases. Methods 25, 25A and 18 are described in 40 CFR 60, Appendix A.

[Rule 62-297.401(25), F.A.C., Rule 62-296.570, F.A.C., and AO50-191733 amendment dated 1/27/97]

PERMITTEE:
Sugar Cane Growers Cooperative of Florida
Glades Sugar House
Boiler No. 3

Facility ID. No.: 0990026
Permit Number: 0990026-003-AC
Date of Issue: October 27, 2000
Expiration Date: October 27, 2005

SPECIFIC CONDITIONS:

22. **Notification.** The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

23. **Special Compliance Tests.** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

[Rule 62-297.310(7)(b), F.A.C.]

Recordkeeping and Reporting Requirements

24. In order to document continuing compliance with **Specific Conditions No. 9 and 10**, records of the percent sulfur content of all fuel burned and the quantities of fuel burned shall be kept. The basis of these records of sulfur content shall be either as-shipped analyses from the vendor, analysis of shipments by the permittee, or in the case of on-site blending, analyses of a fuel sample from the fuel storage tank(s) each time a shipment of fuel is received. These records shall be kept for a period of 5 years and shall be available to the department upon request.

[Rules 62-4.070(3), F.A.C., Rule 62-213.440(1)(b), F.A.C., and Construction Permit AC50-2046A dated 2/10/75]

25. A record shall be kept of the steam flow from the boiler to determine the heat input for the purpose of compliance with the emission limits

26. For a period of five (5) years from the date of this permit, SCGC shall include, in the Annual Report, the hours of operation of Boiler No. 3 compared with the operating hours for 1998 and 1999.

[Rule 62-4.070(3), F.A.C. (reasonable assurance)]

27. **Compliance Test Reports.**

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

PERMITTEE:
Sugar Cane Growers Cooperative of Florida
Glades Sugar House
Boiler No. 3

Facility ID. No.: 0990026
Permit Number: 0990026-003-AC
Date of Issue: October 27, 2000
Expiration Date: October 27, 2005

SPECIFIC CONDITIONS:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time, and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer, and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing, and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

PERMITTEE:
Sugar Cane Growers Cooperative of Florida
Glades Sugar House
Boiler No. 3

Facility ID. No.: 0990026
Permit Number: 0990026-003-AC
Date of Issue: October 27, 2000
Expiration Date: October 27, 2005

SPECIFIC CONDITIONS:

28. Annual Operating Report - Pursuant to Rule 62-210.370(3), F.A.C. SCGC shall submit an Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) to the Department (DEP) District or DEP-approved local air pollution control program office annually by March 1 of the following year unless otherwise indicated by permit condition or Department request.
[Rule 62-210.370(3), F.A.C.]

Reasonable Assurances

29. The scrubber control system shall be equipped with instrumentation to monitor total gas pressure drop and inlet water pressure and flow rate. Such instrumentation shall be properly maintained so as to be functional at all times.
[Rule 62-4.070(3), F.A.C.]

30. In order to assure compliance with **Specific Condition 5. and 6.** the gas pressure drop, inlet water pressure and water flow rate to the scrubber shall be logged every eight hours the boiler is in operation.
[Rule 62-4.070(3), F.A.C. (reasonable assurance), and Rule 62-213.440(1)(b), F.A.C. (Periodic Monitoring)]

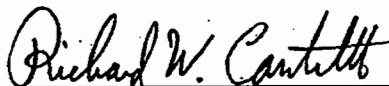
GENERAL CONDITIONS:

31. An integral part of this permit is the attached 15 General Conditions.
[Rule 62-4.160, F.A.C.]

NOTE: In the event of an emergency the permittee shall contact the Department by calling (850) 413-9911. During normal business hours, the permittee shall call (941) 332-6975.

Issued this 27th day of October, 2000

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Richard W. Cantrell
Director of
District Management

RWC/DMK/jw

16 Pages Attached

PERMITTEE:
Sugar Cane Growers Cooperative of Florida
Glades Sugar House
Boiler No. 3

Facility ID. No.: 0990026
Permit Number: 0990026-003-AC
Date of Issue: October 27, 2000
Expiration Date: October 27, 2005

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5) Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither 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. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use 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.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by any order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

PERMITTEE:
Sugar Cane Growers Cooperative of Florida
Glades Sugar House
Boiler No. 3

Facility ID. No.: 0990026
Permit Number: 0990026-003-AC
Date of Issue: October 27, 2000
Expiration Date: October 27, 2005

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. 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 provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of non-compliance, including 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.

9. 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The 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.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-30.300, F.A.C. as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

PERMITTEE:
Sugar Cane Growers Cooperative of Florida
Glades Sugar House
Boiler No. 3

Facility ID. No.: 0990026
Permit Number: 0990026-003-AC
Date of Issue: October 27, 2000
Expiration Date: October 27, 2005

GENERAL CONDITIONS:

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - (x) Determination of Best Available Control Technology (BACT)
 - (x) Determination of Prevention of Significant Deterioration (PSD)
 - () Compliance with New Source Performance Standards (NSPS)
14. The permittee shall comply with the following:
 - (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.
 - (b) The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained 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 dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used;
 - 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 the 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 corrected promptly.

ATTACHMENT GSH-EU3-IV3
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT GSH-EU3-IV3 ALTERNATIVE METHODS OF OPERATION

Boiler No. 3 may simultaneously burn four different fuels: bagasse, residue, No. 6 residual oil, and small quantities of on-spec used oil. Small quantities of on-spec used oil contaminated soil that is generated on-site can be burned, as well as small quantities of hazardous materials under the BIF rule. Heat input from bagasse shall not exceed the permitted limit of 229.1 MMBtu/hr (maximum 1-hr average). Heat input from residue shall not exceed 201.6 MMBtu/hr (maximum 24-hr average). Heat input from fuel oil and on-spec used oil shall not exceed 157.2 MMBtu/hr (maximum 24-hr average).

EMISSIONS UNIT INFORMATION

Section [4]

Boiler No. 4

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [4]

Boiler No. 4

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Boiler No. 4

3. Emissions Unit Identification Number: **004**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: _____ MW

11. Emissions Unit Comment:
This boiler has a traveling grate and is fired by bagasse, residue, and fuel oil. This emission unit produces steam for use in the production of raw sugar.

EMISSIONS UNIT INFORMATION

Section [4]

Boiler No. 4

Emissions Unit Control Equipment/Method: Control 1 of 2

1. Control Equipment/Method Description: Low Efficiency Dust Collector
2. Control Device or Method Code: 009

Emissions Unit Control Equipment/Method: Control 2 of 2

1. Control Equipment/Method Description: Impingement Type Wet Scrubber (2)
2. Control Device or Method Code: 115

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [4]

Boiler No. 4

**C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)**

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: D (Boiler No. 4)		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 180 feet	7. Exit Diameter: 9.5 feet	
8. Exit Temperature: 171 °F	9. Actual Volumetric Flow Rate: 214,618 acfm	10. Water Vapor: 32 %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Stack parameters based on December 2009 stack test.			

EMISSIONS UNIT INFORMATION

Section [4]

Boiler No. 4

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Bagasse		
2. Source Classification Code (SCC): 1-02-011-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 35.794	5. Maximum Annual Rate: 261,151	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.08, dry	8. Maximum % Ash: 2.6, dry	9. Million Btu per SCC Unit: 16
10. Segment Comment: Maximum hourly tons burned on dry basis, based on 572.7 MMBtu/hr (24-hr average) and a heating value of 8,000 Btu/lb (dry) for bagasse. Maximum annual rate based on 7,296 hr/yr operations.		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Solid Waste: Residue		
2. Source Classification Code (SCC): 1-02-012-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 28.315	5. Maximum Annual Rate: 206,583	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.6, dry	8. Maximum % Ash: 8.0, dry	9. Million Btu per SCC Unit: 17.8
10. Segment Comment: Maximum hourly tons burned on dry basis, based on 504.0 MMBtu/hr (24-hr average) and a heating value of 8,900 Btu/lb (dry) for bagasse residue. Maximum annual rate based on 7,296 hr/yr operations.		

EMISSIONS UNIT INFORMATION

Section [4]

Boiler No. 4

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Residual Oil: Grade 6 Oil		
2. Source Classification Code (SCC): 1-02-004-01		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 2.602	5. Maximum Annual Rate: 18,984	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 2.4	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: Based on 392.9 MMBtu/hr (24-hr average) and heating value of 151,000 Btu/gal for No. 6 fuel oil. Maximum annual rate based on 7,296 hr/yr operations.		

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Liquid Waste: Waste Oil		
2. Source Classification Code (SCC): 1-02-013-02		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 0.04	5. Maximum Annual Rate: 75	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: The used oil is generated solely by the facility, mostly during the repair season. The on-specification used oil is properly stored and burned in the boilers for energy recovery. The amount generated ranges between 50,000 and 75,000 gallons per year.		

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 114.5 lb/hour 417.8 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.20 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: $572.7 \text{ MMBtu/hr} \times 0.20 \text{ lb/MMBtu} = 114.5 \text{ lb/hr}$ $114.5 \text{ lb/hr} \times 7,296 \text{ hr/yr} \div 2,000 \text{ lb/ton} = 417.8 \text{ TPY}$ See Attachment GSH-EU4-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor and potential emissions based on maximum heat input for carbonaceous fuel burning.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [4]
Boiler No. 4

Page [1] of [4]
Particulate Matter - PM

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.20 lb/MMBtu	4. Equivalent Allowable Emissions: 114.5 lb/hour 417.8 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-012-AV. The Equivalent Allowable Emissions were calculated as if only bagasse were being burned while the source achieves its maximum steam rate.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.10 lb/MMBtu	4. Equivalent Allowable Emissions: 39.3 lb/hour 143.4 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Rule 62-296.410(1)(b)2, F.A.C. The maximum allowable emissions have been calculated as if only oil were being used at the maximum oil firing rate.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [4]
Boiler No. 4

POLLUTANT DETAIL INFORMATION

Page [2] of [4]
Nitrogen Oxides - NOX

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: NOX		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 327.6 lb/hour 1,195.1 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.65 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 504.0 MMBtu/hr x 0.65 lb/MMBtu = 327.6 lb/hr 327.6 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 1,195.1 TPY See Attachment GSH-EU4-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor and potential emissions based on maximum heat input for residue firing.			

EMISSIONS UNIT INFORMATION

Section [4]
Boiler No. 4

POLLUTANT DETAIL INFORMATION

Page [2] of [4]
Nitrogen Oxides - NOX

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.65 lb/MMBtu	4. Equivalent Allowable Emissions: 327.6 lb/hour 1,195.1 tons/year
5. Method of Compliance: EPA Method 7 or 7E	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AO50-191735 dated 1/27/97, RACT Permit Amendment. Applies when firing bagasse residue at 504.0 MMBtu/hr.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.45 lb/MMBtu	4. Equivalent Allowable Emissions: 257.7 lb/hour 940.1 tons/year
5. Method of Compliance: EPA Method 7 or 7E	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AO50-191735 dated 1/27/97, RACT Permit Amendment. Applies when firing bagasse at 572.7 MMBtu/hr.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [4]
Boiler No. 4

POLLUTANT DETAIL INFORMATION

Page [3] of [4]
Volatile Organic Compounds - VOC

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 400.9 lb/hour 1,462.4 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.70 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 572.7 MMBtu/hr x 0.70 lb/MMBtu = 400.9 lb/hr 400.9 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 1,462.4 TPY See Attachment GSH-EU4-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Based on bagasse firing only.			

EMISSIONS UNIT INFORMATION

Section [4]
Boiler No. 4

POLLUTANT DETAIL INFORMATION

Page [3] of [4]
Volatile Organic Compounds -VOC

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.70 lb/MMBtu	4. Equivalent Allowable Emissions: 400.9 lb/hour 1,462.4 tons/year
5. Method of Compliance: EPA Methods 25A and 18 combined	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-005-AC dated 4/28/03. Based on firing only bagasse. The allowable emission rate of 0.70 lb/MMBtu was requested by permittee pursuant to Rule 62-296.570, F.A.C.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [4]
Boiler No. 4

POLLUTANT DETAIL INFORMATION

Page [4] of [4]
Sulfur Dioxide - SO2

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 1,099.0 lb/hour 4,009.3 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 2.4% sulfur oil Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To: .	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Fuel Oil: 392.9 MMBtu/hr x 2.607 lb SO₂/MMBtu = 1,024.1 lb/hr Remainder Residue: 111.1 MMBtu/hr x 0.674 lb SO₂/MMBtu = 74.9 lb/hr Total: 1,024.1 lb/hr + 74.9 lb/hr = 1,099.0 lb/hr 1,099.0 lb/hr x 7,296 hr/yr x ton/2,000 lb = 4,009.3 TPY See Attachment GSH-EU4-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor represents fuel oil firing only. Potential emissions based on combination of residue and fuel oil firing.			

EMISSIONS UNIT INFORMATION

Section [4]
Boiler No. 4

POLLUTANT DETAIL INFORMATION

Page [4] of [4]
Sulfur Dioxide - SO2

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 2.4% sulfur oil	4. Equivalent Allowable Emissions: 1,024.1 lb/hour 3,736.6 tons/year
5. Method of Compliance: Fuel Oil Analysis	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on fuel oil burning only.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [4]

Boiler No. 4

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE30	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 30 % Exceptional Conditions: 40 % Maximum Period of Excess Opacity Allowed: 2 min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Rule 62-296.410(1)(b)1, F.A.C.	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [4]

Boiler No. 4

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 3

1. Parameter Code: PRS	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Yokogawa Model Number: See comment Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures total pressure drop across the wet scrubbers. Model No.: South Scrubber: EJA118W North Scrubber: EJA118W	

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 8711TSA040R1N061 Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures inlet water flow to the wet scrubbers.	

EMISSIONS UNIT INFORMATION

Section [4]

Boiler No. 4

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor **3** of **3**

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 1151DP4 Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures steam flow on Boiler No. 4.	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

Section [4]
Boiler No. 4

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU4-I1 <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU1-I2 <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU4-I3 <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU4-I4 <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT GSH-EU4-B6

MAXIMUM FUEL USAGE AND HEAT INPUT RATES

**Attachment GSH-EU4-B6. Maximum 24-Hour and Annual Heat Input and Fuel Usage Rates
Boiler No. 4, SCGCF, Belle Glade**

Fuel	Heat Transfer			Fuel Firing Rate	
	Heat Input to Boiler	Efficiency %	Heat Output to Steam	Hourly	Annual
	Maximum Short-Term				
	(MMBtu/hr)		(MMBtu/hr)		
Bagasse	572.73	55.0	315.00	35.80 tons/hr ^a	261,163.6 TPY ^a
Residue	504.00	62.5	315.00	28.31 tons/hr ^b	206,583.4 TPY ^b
No. 6 Fuel Oil	392.90	62.5	245.6	2,602 gal/hr	18,984,095 gal/yr
<u>Max fuel firing + bagasse</u>					
Bagasse	126.25	55.0	69.44	7.89 tons/hr ^a	57,570.0 TPY ^a
Residue	0.00	62.5	0.00	0 tons/hr ^b	0.0 TPY ^b
No. 6 Fuel Oil	392.9	62.5	245.56	2,602 gal/hr	18,984,095 gal/yr
Total	519.15		315.00		
<u>Max fuel firing + Residue</u>					
Bagasse	0.00	55.0	0.00	0 tons/hr ^a	0.0 TPY ^a
Residue	111.10	62.5	69.44	6.24 tons/hr ^b	45,538.5 TPY ^b
No. 6 Fuel Oil	392.9	62.5	245.56	2,602 gal/hr	18,984,095 gal/yr
Total	504		315.0		

^a Based on bagasse firing.

^b Based on residue firing.

Notes:

Total steam production required = 300,000 lb/hr.

Net steam enthalpy = 1,050 Btu/lb.

Total heat output to steam = 300,000 lb/hr steam x 1,050 Btu/lb = 315.0 MMBtu/hr.

Fuels may be burned in combination, not to exceed total heat outputs.

Based on fuel heating values as follows:

Bagasse, dry - 8,000 Btu/lb

Residue, dry - 8,900 Btu/lb

No. 6 Fuel Oil - 151,000 Btu/gal



ATTACHMENT GSH-EU4-F1.10
CALCULATION OF EMISSIONS

Attachment GSH-EU4-F1.10. Maximum Hourly and Annual Emissions of Regulated Pollutants
Boiler No. 4, SCGCF, Belle Glade

Regulated Pollutant	Bagasse				Residue				Fuel oil				Max Fuel Oil, Remainder Bagasse	Max Fuel Oil, Remainder Residue	Maximum Hourly Emission Rate (lb/hr)	Maximum Annual Emission Rate (TPY)
	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Emissions ^b (lb/hr)	Emissions ^d (lb/hr)		
Particulate (PM)	0.20	1	572.7	114.5	0.20	1	504.0	100.8	0.10	1	392.9	39.3	64.5	61.5	114.5	417.9
Sulfur dioxide	0.06	3	572.7	34.4	0.674	5	504.0	339.8	2.607	2	392.9	1,024.1	1,031.7	1,099.0	1,099.0	4,009.3 ^c
Nitrogen oxides	0.45	1	572.7	257.7	0.65	1	504.0	327.6	0.31	4	392.9	121.8	178.6	194.0	327.6	1,195.1
VOC	0.70	1	572.7	400.9	0.70	1	504.0	352.8	0.00185	6	392.9	0.7	89.1	78.5	400.9	1,462.5

Notes:

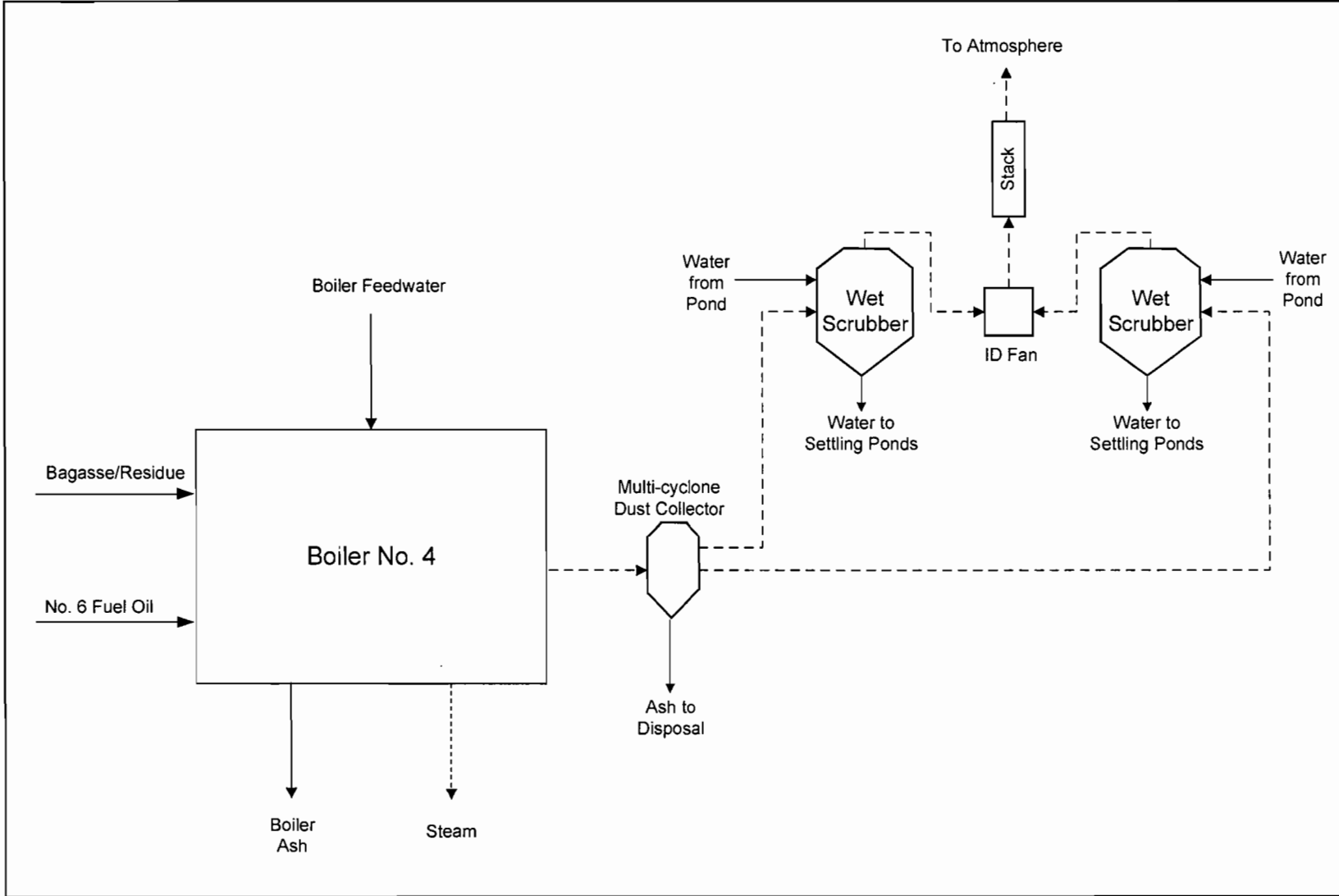
- ^a Activity factor is based on maximum heat input rate.
- ^b Based on 392.9 MMBtu/hr max. heat input from fuel oil combustion and 126.2 MMBtu/hr heat input from bagasse combustion.
- ^c Total emissions of SO₂ from all operating boilers shall not exceed 14 tons per day.
- ^d Based on 392.9 MMBtu/hr max. heat input from fuel oil combustion and 111.1 MMBtu/hr heat input from residue combustion.
- ^e Based on 7,296 hr/yr operation.

Unless otherwise specified, heating values for each fuel used are as follows: 3,600 Btu/lb for wet bagasse, 8,000 Btu/lb dry bagasse, 8,900 Btu/lb for dry residue, and 151,000 Btu/gal for No. 6 fuel oil.

References:

1. Emission factor from permit specific condition (Permit No. 0990026-012-AV).
2. Based on maximum 2.4% fuel sulfur content as specified in Permit No. 0990026-012-AV. No. 6 fuel oil has heating value of 151,000 Btu/gal and density of 8.2 lb/gal. Hourly emissions based on 2 lb SO₂ per lb of S and assuming all sulfur is emitted as SO₂ when firing fuel oil. Calculation: 2.4% sulfur + 151,000 Btu/gal x 8.2 lb/gal x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu = 2.607 lb/MMBtu.
3. Based on industry test data.
4. Emission factor of 47 lb per 1,000 gallon for NO_x due to fuel oil firing, from AP-42 Table 1.3-1. Calculation: 47 lb/1000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.31 lb/MMBtu.
5. Sulfur content of residue assumed to be 0.5% (dry), with 40% removal in wet scrubbers. Calculation: 1/8900 Btu/lb x 0.5% sulfur x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu x 40% scrubber removal efficiency = 0.674 lb/MMBtu.
6. Emission factor of 0.28 lb per 1,000 gallon for VOC due to fuel oil firing, from AP-42 Table 1.3-3. Calculation: 0.28 lb/1000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.00185 lb/MMBtu.

ATTACHMENT GSH-EU4-11
PROCESS FLOW DIAGRAM



Attachment GSH-EU4-11
Process Flow Diagram

Process Area: Boiler No. 4

Sugar Cane Growers Cooperative of Florida

Process Flow Legend:	
Solid / Liquid	→
Gas	- - - - -
Steam	- · - · -



ATTACHMENT GSH-EU4-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT GSH-EU4-I3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Sugar Cane Growers Cooperative of Florida

Boiler No. 4

Control equipment: Two impingement wet scrubbers. Parameters below apply to each scrubber.

Scrubbing Liquid:	Water
Inlet Water Pressure (psi):	40-100
Pressure Drop across Scrubber (inches H ₂ O):	2-10
Water Flow Rate (gpm):	100-400

ATTACHMENT GSH-EU4-14

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT GSH-EU4-I4 PROCEDURE FOR STARTUP/SHUTDOWN

Sugar Cane Growers Cooperative of Florida
Boiler No. 4

During startup and shutdown of the boilers, excess PM, opacity, NO_x, SO₂, and VOC emissions for more than 2 hours in a 24-hour period are possible. Pursuant to Rule 62-210.700(1), F.A.C., the following procedures and precautions are taken to minimize the magnitude and duration of excess emissions during startup and shutdown of Boiler No. 4. Boiler room foreman and operating personnel have received proper training on emissions control procedures.

STARTUP INSTRUCTIONS

Note: Oil atomization will be provided initially by air until steam is available, for which arrangement must be made to have an air compressor available.

1. Connect hose from the air compressor to the boiler steam trap set located in the atomization steam header to provide oil atomization.
2. Turn on the electric oil heater, and set the temperature on 230°F; set the pressure on 80 psig, or between 80 and 90 psig.
3. Start re-circulating the soil through the system.
4. Open the superheater drains and vents.
5. Open the steam drum vent.
6. Open the drum inlet feed water valve and check valve.
7. Open the valve to drum pressure gauge.
8. Open valve to drum water columns.
9. Open the valve to drum automatic water level.
10. Close the continuous blowdown in tank.
11. Close the chemical feed pump valves.
12. Close the non-return valve and boiler main valve.
13. Close the soot blower header.
14. Close the feed water automatic by-pass valve.

In order to prepare to fire-up the boiler, do the following:

15. Start the ID fan. Keep the ID at -0.2" to -0.3" water.
16. Start the FD fan. Keep the FD at +0.2" water.
17. Start the dust collector.
18. Check the scrubber water level.
19. Turn on the water re-circulation pump.
20. Adjust the FD fan air to burner.
21. Start the burner.
22. Watch the steam drum pressure.

After three or three and a half hours, the steam drum pressure should be about 100 psig.

23. When the steam drum pressure reaches 100 psig, start warming the main header by slowly opening the drum main valve, and do the following:
24. Open valve to main oil burner header.
25. Switch from electric oil heater to steam oil heater, and turn off the electric oil heater.
26. Open valve to steam atomization system.
27. Switch from air atomization to steam atomization.
28. Disconnect compressor air line and turn off the compressor.
29. Open the continuous blowdown line.
30. Open the chemical feed line.
31. Start raising the steam drum pressure at a rate of 100 psig per hour, until the pressure reaches 400 psig.
32. Open the non-return valve to steam header.
33. Open the steam main valve to steam header.

After flow is stabilized, do the following:

34. Close the drum vent.
35. Close the superheater vents
36. Start feeding the boiler with bagasse.
37. The boiler is on-line.

Cold Start-Ups

Cold start-ups should not be made in less than 7 hours from the first fire to normal working pressure of about 400 psig. Normally, a cold start-up will require 7 to 12 hours to complete.

Warm Start-Ups

Warm start-ups with steam and hot water available can be made in less time, typically 2 to 7 hours, depending on the boiler operating conditions.

SHUTDOWN INSTRUCTIONS

1. The feeding of fuel oil and steam to the burners is discontinued.
2. The feeding of carbonaceous fuel to the furnace is discontinued.
3. Water flow to the scrubber is maintained until the ID fans are stopped. This must be done no less than two hours after the shutdown procedure starts.

ATTACHMENT GSH-EU4-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT MODIFICATION

January 27, 1996/7

CERTIFIED MAIL # P 482 208 835
RETURN RECEIPT REQUESTED

In the Matter of an Application
for permit by:

Jose F. Alvarez
VP-Planning & Plant Operations
Sugar Cane Growers Cooperative of Florida
Post Office Box 666
Belle Glade, Florida 33430-0666

DEP Files 52/50/0026/01,
52/50/0026/02, 52/50/0026/03,
52/50/0026/04, 52/50/0026/05
DEP Permit Numbers AO50-191721
AO50-191731, AO50-191733,
AO50-191735, AO50-191737
Palm Beach County- AP

The applicant, Sugar Cane Growers Cooperative of Florida, applied on August 15, 1994 to the Department of Environmental Protection for a permit modification to permits AO50-191721, AO50-191731, AO50-191733, AO50-191735, And AO50-191737 for lower RACT emission limits for VOCs and NOx. This also includes changes in testing methods. The following changes (additions) to the permits are hereby entered and are now a part of the permits:

SPECIFIC CONDITION:

13. Volatile Organic Compound (VOC):

- A. VOC emissions from boilers No. 1, 2, 3, 4, and 5 shall not exceed 1.5 lb/MMBtu. [Rule 62-296.570(4)(b)6., F.A.C.]
- B. During each of the 1997-1998 and 1998-1999 sugarcane seasons, the permittee shall conduct a minimum of one set of three (3) test runs for VOC on Boilers No. 1, 2, 3, 4, and 5 using EPA Method 25A, modified to incorporate a sample dilution system as approved by the department.

VOC testing may be done during the 1996-1997 sugarcane season instead of the 1998-1999 season if testing arrangements can be made.
- C. In the event that the series of test runs required by Specific Condition 13.B. above results in VOC emissions in the range of 1.5 to 5.0 lb/MMBtu, The department, at the end of the test series, shall revise the VOC emission limit upwards, not to exceed 5.0 lb/MMBtu as specified by Rule 62-296.570(4)(b)6., F.A.C. During This testing period, the permittee shall make reasonable effort to limit air emissions, and exceedances of the 1.5 lb/MMBtu VOC emission limit stated in Specific Condition 13.A. above shall not constitute a violation.

14. Nitrogen Oxides (NO_x) emissions from Boilers No. 1, 2, 3, 4, and 5 shall not exceed 0.45 lb/MMBtu when burning bagasse or 0.65 lb/MMBtu when burning residue.
[Rule 62-296.570(4)(b)6., F.A.C.]

15. These boilers shall be tested for VOC and NO_x during each federal fiscal year (October 1-September 30). Each test run shall be conducted in accordance with 40 CFR 60, Appendix A, using the method indicated. [Rule 62-297.310(7)(a)4., F.A.C.]

A. VOC-EPA Method 25, or EPA Method 25A modified to incorporate a sample dilution system as approved by the Department under the provisions of Rule 652-297.620, F.A.C. If EPA Method 25A is employed, EPA Method 18 may be used to quantify and subtract the methane fraction in the exhaust gases.

B. NO_x-EPA Method 7 or 7E.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with sections 120.569 and 120.57 of the Florida Statutes, or all parties may reach a written agreement on mediation as an alternative remedy under section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for pursuing mediation.

The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any other person must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner; the Department's permit identification number and the county in which the subject matter or activity is located;
- (b) a statement of how and when each petitioner received notice of the Department's action;
- (c) a statement of how each petitioner's substantial interests are affected by the department's action;
- (d) a statement of the material facts disputed by the petitioner, if any;
- (e) a statement of facts that the petitioner contends warrant reversal or modification of the Department's action;
- (f) a statement of which rules or statutes the petitioner contends require reversal or modification of the Department's action; and
- (g) and a statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Any person may elect to pursue mediation by reaching a mediation agreement with all parties to the proceeding (which includes the Department and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Department's action or proposed action. The agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

The agreement to mediate must include the following:

- (a) the names, addresses, and telephone numbers of any persons who may attend the mediation;
- (b) the name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;
- (c) the agreed allocation of the costs and fees associated with the mediation;
- (d) the agreement of the parties on the confidentiality of discussions and documents introduced during mediation;
- (e) the date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;
- (f) the name of each party's representative who shall have authority to settle or recommend settlement;
- (g) either an explanation of how the substantial interests of each mediating party will be affected by the action or proposed action addressed in this action or a statement clearly identifying the petition for hearing that each party has already filed, and incorporating it by reference; and
- (h) the signatures of all parties or their authorized representatives.

As provided in section 120.573 of the Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by section 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above, and must therefore file their petitions within fourteen days of receipt of this notice. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under section 120.569 and 120.57 remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

This action is final and effective on the date filed with the Clerk of the Department unless a petition (or request for mediation) is filed in accordance with the above. Upon the timely filing of a petition (or request for mediation) this order will not be effective until further order of the Department.

Any party to the order has the right to seek judicial review of the order under section 120.68 of the Florida Statutes, by the filing of a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department.

Executed in Fort Myers, Florida.

STATE OF FLORIDA DEPARTMENT
ENVIRONMENTAL PROTECTION

David M. Knowles

David M. Knowles, P.E.
District Air Program Administrator
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881
(941) 458-4211

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on January 27, 1997 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, under section 120.52 (7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

David M. Knowles
(Clerk)

1-27-97
(Date)

DMK/JRS/jw

Copies furnished to:

David Buff, P.E.

ATTACHMENT GSH-EU4-IV3
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT GSH-EU4-IV3 ALTERNATIVE METHODS OF OPERATION

Boiler No. 4 may simultaneously burn four different fuels: bagasse, residue, No. 6 residual oil, and small quantities of on-spec used oil. Small quantities of on-spec used oil contaminated soil that is generated on-site can be burned, as well as small quantities of hazardous materials under the BIF rule. Heat input from bagasse shall not exceed the permitted limit of 572.7 MMBtu/hr (maximum 24-hr average). Heat input from residue shall not exceed 504.0 MMBtu/hr (maximum 24-hr average). Heat input from fuel oil and on-spec used oil shall not exceed 392.9 MMBtu/hr (maximum 24-hr average) and 6.04 MMBtu/hr (annual average) (40 gallons per hour), respectively.

EMISSIONS UNIT INFORMATION

Section [5]
Boiler No. 5

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [5]

Boiler No. 5

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Boiler No. 5

3. Emissions Unit Identification Number: **005**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: _____ MW

11. Emissions Unit Comment:
This boiler has a traveling grate, and is fired by bagasse, residue, and fuel oil. This emission unit produces steam for use in the production of raw sugar.

EMISSIONS UNIT INFORMATION

**Section [5]
Boiler No. 5**

Emissions Unit Control Equipment/Method: Control 1 of 2

1. Control Equipment/Method Description: Multiple-Cyclone Dust Collector
2. Control Device or Method Code: 121

Emissions Unit Control Equipment/Method: Control 2 of 2

1. Control Equipment/Method Description: Impingement Type Wet Scrubber (2)
2. Control Device or Method Code: 115

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [5]

Boiler No. 5

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:		
2. Maximum Production Rate: 230,000 lb/hr steam (24-hour average)		
3. Maximum Heat Input Rate: 439.1 million Btu/hr (24-hour average)		
4. Maximum Incineration Rate: pounds/hr tons/day		
5. Requested Maximum Operating Schedule:		
24 hours/day		7 days/week
44 weeks/year		7,296 hours/year
6. Operating Capacity/Schedule Comment:		
<p>The maximum rates are based on a 24-hour average. Maximum heat input based on burning bagasse. The maximum heat input rate from residue is 386.4 MMBtu/hr, and the maximum heat input rate from fuel oil is 301.9 MMBtu/hr. Boiler operating pressure and temperature: 400 psig, 585°F. See Attachment GSH-EU5-B6.</p> <p>Maximum operating time during the off-season (April 16-October 12) is 120 days with only three boilers of Boiler Nos. 1, 2, 4, 5, and 8 operating at a time.</p>		

EMISSIONS UNIT INFORMATION

Section [5]

Boiler No. 5

**C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: E (Boiler No. 5)		2. Emission Point Type Code: 1			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:					
5. Discharge Type Code: V		6. Stack Height: 150 feet		7. Exit Diameter: 7.0 feet	
8. Exit Temperature: 163 °F		9. Actual Volumetric Flow Rate: 135,162 acfm		10. Water Vapor: 26 %	
11. Maximum Dry Standard Flow Rate: dscfm			12. Nonstack Emission Point Height: feet		
13. Emission Point UTM Coordinates... Zone: East (km): North (km):			14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)		
15. Emission Point Comment: Stack parameters based on December 2009 stack test.					

EMISSIONS UNIT INFORMATION

Section [5]

Boiler No. 5

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Bagasse		
2. Source Classification Code (SCC): 1-02-011-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 27.444	5. Maximum Annual Rate: 200,230	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.08, dry	8. Maximum % Ash: 2.6, dry	9. Million Btu per SCC Unit: 16
10. Segment Comment: Maximum hourly tons burned on dry basis, based on 439.1 MMBtu/hr (24-hr average) and a heating value of 8,000 Btu/lb (dry) for bagasse. Maximum annual rate based on 7,296 hr/yr operations.		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Solid Waste: Residue		
2. Source Classification Code (SCC): 1-02-012-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 21.708	5. Maximum Annual Rate: 158,380	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.6, dry	8. Maximum % Ash: 8.0, dry	9. Million Btu per SCC Unit: 17.8
10. Segment Comment: Maximum hourly tons burned on dry basis, based on 386.4 MMBtu/hr (24-hr average) and a heating value of 8,900 Btu/lb (dry) for bagasse residue. Maximum annual rate based on 7,296 hr/yr operations.		

EMISSIONS UNIT INFORMATION

Section [5]

Boiler No. 5

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Residual Oil: Grade 6 Oil		
2. Source Classification Code (SCC): 1-02-004-01		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 1.999	5. Maximum Annual Rate: 14,587	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 2.40	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: Based on 301.9 MMBtu/hr (24-hr average) and heating value of 151,000 Btu/gal for No. 6 fuel oil. Maximum annual rate based on 7,296 hr/yr operations.		

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Liquid Waste: Waste Oil		
2. Source Classification Code (SCC): 1-02-013-02		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 0.04	5. Maximum Annual Rate: 75	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: The used oil is generated solely by the facility, mostly during the repair season. The on-specification used oil is properly stored and burned in the boilers for energy recovery. The amount generated ranges between 50,000 and 75,000 gallons per year.		

EMISSIONS UNIT INFORMATION

Section [5]

Boiler No. 5

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	121	115	EL
PM10	121	115	NS
NOX			EL
VOC			EL
SO2	115		EL
Hydrochloric Acid (H106)			NS
PM2.5	121	115	NS

EMISSIONS UNIT INFORMATION

Section [5]
Boiler No. 5

POLLUTANT DETAIL INFORMATION

Page [1] of [4]
Particulate Matter - PM

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 109.8 lb/hour 400.5 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.25 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 439.1 MMBtu/hr x 0.25 lb/MMBtu = 109.8 lb/hr 109.8 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 400.5 TPY See Attachment GSH-EU5-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor and potential emissions based on maximum heat input for carbonaceous fuel burning.			

EMISSIONS UNIT INFORMATION

Section [5]
Boiler No. 5

POLLUTANT DETAIL INFORMATION

Page [1] of [4]
Particulate Matter - PM

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.25 lb/MMBtu	4. Equivalent Allowable Emissions: 109.8 lb/hour 400.5 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-012-AV. The Equivalent Allowable Emissions were calculated as if only bagasse were being burned while the source achieves its maximum steam rate.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.10 lb/MMBtu	4. Equivalent Allowable Emissions: 30.2 lb/hour 110.2 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Rule 62-296.410(1)(b)2, F.A.C. The maximum allowable emissions have been calculated as if only oil were being used at the maximum oil firing rate.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [5]
Boiler No. 5

POLLUTANT DETAIL INFORMATION

Page [2] of [4]
Nitrogen Oxides - NOX

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: NOX		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 251.2 lb/hour 916.2 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.65 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 386.4 MMBtu/hr x 0.65 lb/MMBtu = 251.2 lb/hr 251.2 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 916.2 TPY See Attachment GSH-EU5-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor and potential emissions based on maximum heat input for residue firing.			

EMISSIONS UNIT INFORMATION

Section [5]
Boiler No. 5

POLLUTANT DETAIL INFORMATION

Page [2] of [4]
Nitrogen Oxides - NOX

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.65 lb/MMBtu	4. Equivalent Allowable Emissions: 251.2 lb/hour 916.2 tons/year
5. Method of Compliance: EPA Method 7 or 7E	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AO50-191737 dated 1/27/97, RACT Permit Amendment. Applies when firing bagasse residue at 386.4 MMBtu/hr.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.45 lb/MMBtu	4. Equivalent Allowable Emissions: 197.6 lb/hour 720.8 tons/year
5. Method of Compliance: EPA Method 7 or 7E	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AO50-191737 dated 1/27/97, RACT Permit Amendment. Applies when firing bagasse at 439.1 MMBtu/hr.	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 307.4 lb/hour 1,121.3 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.70 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 439.1 MMBtu/hr x 0.70 lb/MMBtu = 307.4 lb/hr 307.4 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 1,121.3 TPY See Attachment GSH-EU5-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Based on bagasse firing only.			

EMISSIONS UNIT INFORMATION

Section [5]
Boiler No. 5

POLLUTANT DETAIL INFORMATION

Page [3] of [4]
Volatile Organic Compounds - VOC

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.70 lb/MMBtu	4. Equivalent Allowable Emissions: 307.4 lb/hour 1,121.3 tons/year
5. Method of Compliance: EPA Methods 25A and 18 combined	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-005-AC dated 4/28/03. Based on firing only bagasse. The allowable emission rate of 0.70 lb/MMBtu was requested by permittee pursuant to Rule 62-296.570, F.A.C.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [5]
Boiler No. 5

Page [4] of [4]
Sulfur Dioxide - SO2

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 844 lb/hour 3,079 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 2.4% sulfur oil Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Fuel Oil: 301.9 MMBtu/hr x 2.607 lb SO₂/MMBtu = 787 lb/hr Remainder Residue: 84.5 MMBtu/hr x 0.674 lb SO₂/MMBtu = 57.0 lb/hr Total: 786.9 lb/hr + 57.0 lb/hr = 844.0 lb/hr 844.0 lb/hr x 7,296 hr/yr x ton/2,000 lb = 3,078.9 TPY See Attachment GSH-EU5-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor represents fuel oil firing only. Potential emissions based on combination of residue and fuel oil firing.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [5]
Boiler No. 5

Page [4] of [4]
Sulfur Dioxide - SO2

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 2.4% sulfur oil	4. Equivalent Allowable Emissions: 786.9 lb/hour 2,870.8 tons/year
5. Method of Compliance: Fuel Oil Analysis	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on fuel oil burning only.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [5]

Boiler No. 5

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE30	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 30 % Exceptional Conditions: 40 % Maximum Period of Excess Opacity Allowed: 2 min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Rule 62-296.410(1)(b)1, F.A.C.	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATIONSection **[5]**

Boiler No. 5

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 3

1. Parameter Code: PRS	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: See comment Model Number: See comment Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures total pressure drop across the wet scrubbers. <u>South Scrubber</u> Manufacturer: Foxboro Model No.: IDP10-TS1B01F <u>North Scrubber</u> Manufacturer: Yokogawa Model No.: EJA118W	

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 8711TSA040R1N061 Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures inlet water flow to the wet scrubbers.	

EMISSIONS UNIT INFORMATION

Section [5]

Boiler No. 5

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor 3 of 3

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 1151DP4 Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures steam flow on Boiler No. 5.	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

**Section [5]
Boiler No. 5**

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU5-I1 <input type="checkbox"/> . Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU1-I2 <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU5-I3 <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU5-I4 <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT GSH-EU5-B6

MAXIMUM FUEL USAGE AND HEAT INPUT RATES

**Attachment GSH-EU5-B6. Maximum 24-Hour and Annual Heat Input and Fuel Usage Rates
Boiler No. 5, SCGCF, Belle Glade**

Fuel	Heat Transfer			Fuel Firing Rate	
	Heat Input to Boiler	Efficiency %	Heat Output to Steam	24-Hour	Annual
	Maximum 24-Hour				
	(MMBtu/hr)		(MMBtu/hr)		
Bagasse	439.09	55.0	241.50	27.44 tons/hr ^a	200,225.5 TPY ^a
Residue	386.40	62.5	241.50	21.71 tons/hr ^b	158,380.6 TPY ^b
No. 6 Fuel Oil	301.9	62.5	188.7	1,999 gal/hr	14,587,168 gal/yr
<u>Max fuel firing + bagasse</u>					
Bagasse	96.02	55.0	52.81	6.0 tons/hr ^a	43,786.4 TPY ^a
Residue	0.00	62.5	0.00	0 tons/hr ^b	0.0 TPY ^b
No. 6 Fuel Oil	301.9	62.5	188.69	1,999 gal/hr	14,587,168 gal/yr
Total	397.9		241.5		
<u>Max fuel firing + Residue</u>					
Bagasse	0.00	55.0	0.00	0 tons/hr ^a	0.0 TPY ^a
Residue	84.50	62.5	52.81	4.75 tons/hr ^b	34,635.5 TPY ^b
No. 6 Fuel Oil	301.9	62.5	188.69	1,999 gal/hr	14,587,168 gal/yr
Total	386.4		241.5		

^a Based on bagasse firing.

^b Based on residue firing.

Notes:

Total steam production required = 230,000 lb/hr.

Net steam enthalpy = 1,050 Btu/lb.

Total heat output to steam = 230,000 lb/hr steam x 1,050 Btu/lb = 241.5 MMBtu/hr.

Fuels may be burned in combination, not to exceed total heat outputs.

Based on fuel heating values as follows:

Bagasse, dry - 8,000 Btu/lb

Residue, dry - 8,900 Btu/lb

No. 6 Fuel Oil - 151,000 Btu/gal



ATTACHMENT GSH-EU5-F1.10
CALCULATION OF EMISSIONS

Attachment GSH-EU5-F1.10. Maximum Hourly and Annual Emissions of Regulated Pollutants
 Boiler No. 5, SCGCF, Belle Glade

Regulated Pollutant	Bagasse			Residue			Fuel oil			Max Fuel Oil, Remainder Bagasse	Max Fuel Oil, Remainder Residue	Maximum Hourly Emission Rate (lb/hr)	Maximum Annual Emission Rate (TPY)			
	Emission Factor (lb/MMBtu)	Ref	Activity (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref	Activity (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref	Activity (MMBtu/hr)			Hourly Emissions (lb/hr)	Hourly Emissions (lb/hr)	
Particulate (PM)	0.25	1	439.1	109.8	0.25	1	386.4	96.6	0.10	1	301.9	30.2	54.2	51.3	109.8	400.5
Sulfur dioxide	0.06	3	439.1	26.3	0.674	5	386.4	260.5	2.607	2	301.9	786.9	792.7	843.9	843.9	3,078.6
Nitrogen oxides	0.45	1	439.1	197.6	0.65	1	386.4	251.2	0.31	4	301.9	93.6	136.8	148.5	251.2	916.2
VOC	0.70	1	439.1	307.4	0.70	1	386.4	270.5	0.00185	6	301.9	0.6	67.8	59.7	307.4	1,121.3

Footnotes:

- ^a Activity factor is based on maximum heat input rate.
- ^b Based on 301.9 MMBtu/hr max. heat input from fuel oil combustion and 96.0 MMBtu/hr heat input from bagasse combustion.
- ^c Total emissions of SO₂ from all operating boilers shall not exceed 14 tons per day.
- ^d Based on 301.9 MMBtu/hr max. heat input from fuel oil combustion and 84.5 MMBtu/hr heat input from residue combustion.
- ^e Based on 7,296 hr/yr operation.

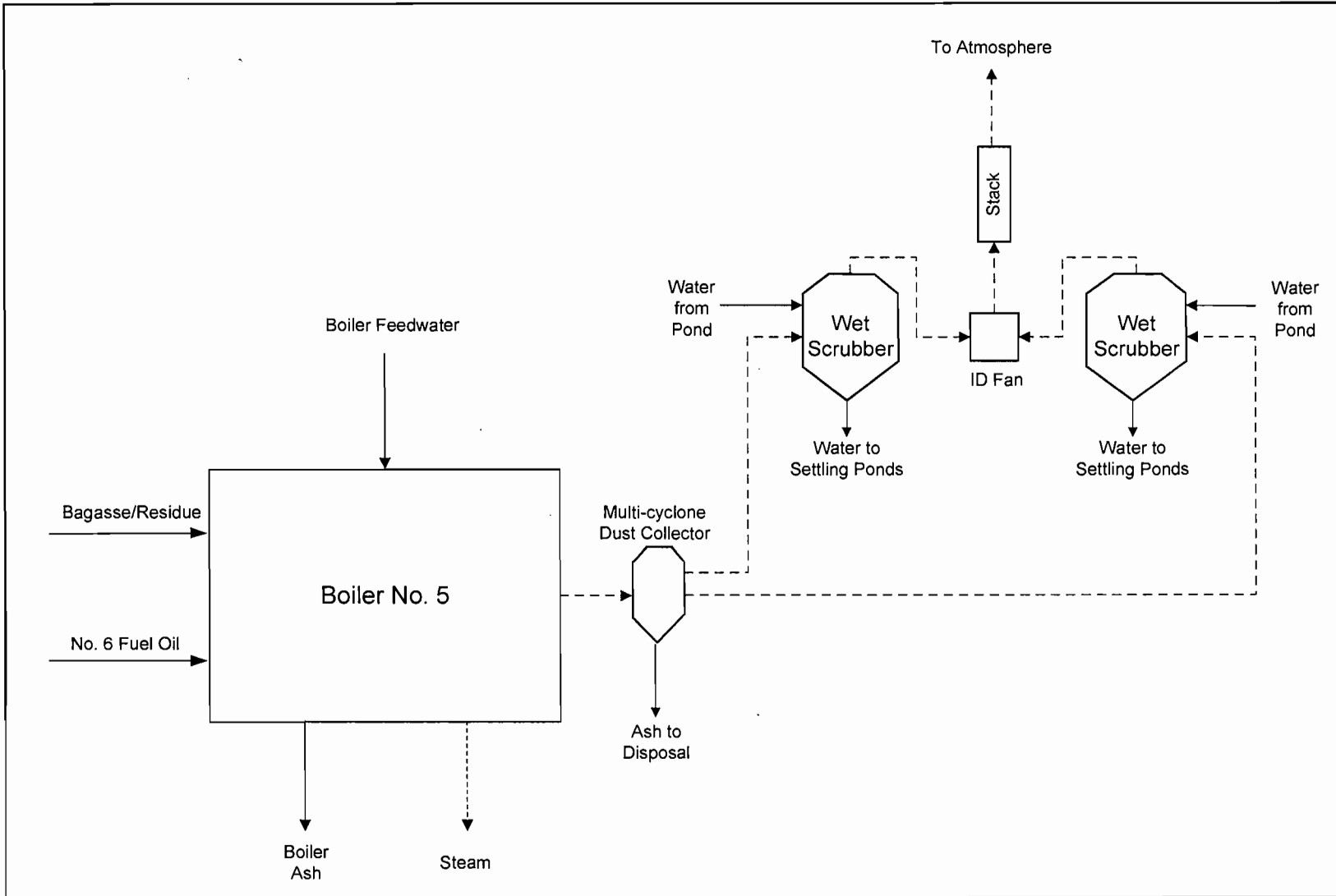
Unless otherwise specified, heating values for each fuel used are as follows: 3,600 Btu/lb for wet bagasse, 8,000 Btu/lb dry bagasse, 8,900 Btu/lb for dry residue, and 151,000 Btu/gal for No. 6 fuel oil.

References:

1. Emission factor from permit specific condition (Permit No. 0990026-012-AV).
2. Based on maximum 2.4% fuel sulfur content as specified in Permit No. 0990026-012-AV. No. 6 fuel oil has heating value of 151,000 Btu/gal and density of 8.2 lb/gal. Hourly emissions based on 2 lb SO₂ per lb of S and assuming all sulfur is emitted as SO₂ when firing fuel oil. Calculation: 2.4% sulfur x 151,000 Btu/gal x 8.2 lb/gal x 2 lb SO₂/lb S x 10⁹ Btu/MMBtu = 2.607 lb/MMBtu.
3. Based on industry test data.
4. Emission factor of 47 lb per 1,000 gallon for NO_x due to fuel oil firing, from AP-42 Table 1.3-1. Calculation: 47 lb/1000 gal x 151,000 Btu/gal x 10⁹ Btu/MMBtu = 0.31 lb/MMBtu.
5. Sulfur content of residue assumed to be 0.5% (dry), with 40% removal in wet scrubbers. Calculation: 1/8900 Btu/lb x 0.5% sulfur x 2 lb SO₂/lb S x 10⁹ Btu/MMBtu x 40% scrubber removal efficiency = 0.674 lb/MMBtu.
6. Emission factor of 0.28 lb per 1,000 gallon for VOC due to fuel oil firing, from AP-42 Table 1.3-3. Calculation: 0.28 lb/1000 gal x 151,000 Btu/gal x 10⁹ Btu/MMBtu = 0.00185 lb/MMBtu.



ATTACHMENT GSH-EU5-11
PROCESS FLOW DIAGRAM



Attachment GSH-EU5-11
Process Flow Diagram

Process Area: Boiler No. 5

Sugar Cane Growers Cooperative of Florida

Process Flow Legend:
Solid / Liquid ———>
Gas - - - - ->
Steam ·····>



ATTACHMENT GSH-EU5-13

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT GSH-EU5-I3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Sugar Cane Growers Cooperative of Florida

Boiler No. 5

Control equipment: Two impingement wet scrubbers. Parameters below apply to each scrubber.

Scrubbing Liquid:	Water
Inlet Water Pressure (psi):	40-100
Pressure Drop across Scrubber (inches H ₂ O):	2-10
Water Flow Rate (gpm):	100-400

ATTACHMENT GSH-EU5-14

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT GSH-EU5-I4 PROCEDURE FOR STARTUP/SHUTDOWN

Sugar Cane Growers Cooperative of Florida
Boiler No. 5

During startup and shutdown of the boilers, excess PM, opacity, NO_x, SO₂, and VOC emissions for more than 2 hours in a 24-hour period are possible. Pursuant to Rule 62-210.700(1), F.A.C., the following procedures and precautions are taken to minimize the magnitude and duration of excess emissions during startup and shutdown of Boiler No. 5. Boiler room foreman and operating personnel have received proper training on emissions control procedures.

STARTUP INSTRUCTIONS

Note: Oil atomization will be provided initially by air until steam is available, for which arrangement must be made to have an air compressor available.

1. Connect hose from the air compressor to the boiler steam trap set located in the atomization steam header to provide oil atomization.
2. Turn on the electric oil heater, and set the temperature on 230°F; set the pressure on 80 psig, or between 80 and 90 psig.
3. Start re-circulating the soil through the system.
4. Open the superheater drains and vents.
5. Open the steam drum vent.
6. Open the drum inlet feed water valve and check valve.
7. Open the valve to drum pressure gauge.
8. Open valve to drum water columns.
9. Open the valve to drum automatic water level.
10. Close the continuous blowdown in tank.
11. Close the chemical feed pump valves.
12. Close the non-return valve and boiler main valve.
13. Close the soot blower header.
14. Close the feed water automatic by-pass valve.

In order to prepare to fire-up the boiler, do the following:

15. Start the ID fan. Keep the ID at -0.2" to -0.3" water.
16. Start the FD fan. Keep the FD at +0.2" water.
17. Start the dust collector.
18. Check the scrubber water level.
19. Turn on the water re-circulation pump.
20. Adjust the FD fan air to burner.
21. Start the burner.
22. Watch the steam drum pressure.

After three or three and a half hours, the steam drum pressure should be about 100 psig.

23. When the steam drum pressure reaches 100 psig, start warming the main header by slowly opening the drum main valve, and do the following:
24. Open valve to main oil burner header.
25. Switch from electric oil heater to steam oil heater, and turn off the electric oil heater.
26. Open valve to steam atomization system.
27. Switch from air atomization to steam atomization.
28. Disconnect compressor air line and turn off the compressor.
29. Open the continuous blowdown line.
30. Open the chemical feed line.
31. Start raising the steam drum pressure at a rate of 100 psig per hour, until the pressure reaches 400 psig.
32. Open the non-return valve to steam header.
33. Open the steam main valve to steam header.

After flow is stabilized, do the following:

34. Close the drum vent.
35. Close the superheater vents
36. Start feeding the boiler with bagasse.
37. The boiler is on-line.

Cold Start-Ups

Cold start-ups should not be made in less than 7 hours from the first fire to normal working pressure of about 400 psig. Normally, a cold start-up will require 7 to 12 hours to complete.

Warm Start-Ups

Warm start-ups with steam and hot water available can be made in less time, typically 2 to 7 hours, depending on the boiler operating conditions.

SHUTDOWN INSTRUCTIONS

1. The feeding of fuel oil and steam to the burners is discontinued.
2. The feeding of carbonaceous fuel to the furnace is discontinued.
3. Water flow to the scrubber is maintained until the ID fans are stopped. This must be done no less than two hours after the shutdown procedure starts.

ATTACHMENT GSH-EU5-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT MODIFICATION

January 27, 1997

CERTIFIED MAIL # P 482 208 835
RETURN RECEIPT REQUESTED

In the Matter of an Application
for permit by:

Jose F. Alvarez
VP-Planning & Plant Operations
Sugar Cane Growers Cooperative of Florida
Post Office Box 666
Belle Glade, Florida 33430-0666

DEP Files 52/50/0026/01,
52/50/0026/02, 52/50/0026/03,
52/50/0026/04, 52/50/0026/05
DEP Permit Numbers AO50-191721
AO50-191731, AO50-191733,
AO50-191735, AO50-191737
Palm Beach County- AP

The applicant, Sugar Cane Growers Cooperative of Florida, applied on August 15, 1994 to the Department of Environmental Protection for a permit modification to permits AO50-191721, AO50-191731, AO50-191733, AO50-191735, And AO50-191737 for lower RACT emission limits for VOCs and NOx. This also includes changes in testing methods. The following changes (additions) to the permits are hereby entered and are now a part of the permits:

SPECIFIC CONDITION:

13. Volatile Organic Compound (VOC):

- A. VOC emissions from boilers No. 1, 2, 3, 4, and 5 shall not exceed 1.5 lb/MMBtu. [Rule 62-296.570(4)(b)6., F.A.C.]
- B. During each of the 1997-1998 and 1998-1999 sugarcane seasons, the permittee shall conduct a minimum of one set of three (3) test runs for VOC on Boilers No. 1, 2, 3, 4, and 5 using EPA Method 25A, modified to incorporate a sample dilution system as approved by the department.

VOC testing may be done during the 1996-1997 sugarcane season instead of the 1998-1999 season if testing arrangements can be made.

- C. In the event that the series of test runs required by Specific Condition 13.B. above results in VOC emissions in the range of 1.5 to 5.0 lb/MMBtu, The department, at the end of the test series, shall revise the VOC emission limit upwards, not to exceed 5.0 lb/MMBtu as specified by Rule 62-296.570(4)(b)6., F.A.C. During This testing period, the permittee shall make reasonable effort to limit air emissions, and exceedances of the 1.5 lb/MMBtu VOC emission limit stated in Specific Condition 13.A. above shall not constitute a violation.

14. Nitrogen Oxides (NO_x) emissions from Boilers No. 1, 2, 3, 4, and 5 shall not exceed 0.45 lb/MMBtu when burning bagasse or 0.65 lb/MMBtu when burning residue.
[Rule 62-296.570(4)(b)6., F.A.C.]

15. These boilers shall be tested for VOC and NO_x during each federal fiscal year (October 1-September 30). Each test run shall be conducted in accordance with 40 CFR 60, Appendix A, using the method indicated. [Rule 62-297.310(7)(a)4., F.A.C.]

A. VOC-EPA Method 25, or EPA Method 25A modified to incorporate a sample dilution system as approved by the Department under the provisions of Rule 652-297.620, F.A.C. If EPA Method 25A is employed, EPA Method 18 may be used to quantify and subtract the methane fraction in the exhaust gases.

B. NO_x-EPA Method 7 or 7E.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with sections 120.569 and 120.57 of the Florida Statutes, or all parties may reach a written agreement on mediation as an alternative remedy under section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for pursuing mediation.

The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any other person must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner; the Department's permit identification number and the county in which the subject matter or activity is located;
- (b) a statement of how and when each petitioner received notice of the Department's action;
- (c) a statement of how each petitioner's substantial interests are affected by the department's action;
- (d) a statement of the material facts disputed by the petitioner, if any;
- (e) a statement of facts that the petitioner contends warrant reversal or modification of the Department's action;
- (f) a statement of which rules or statutes the petitioner contends require reversal or modification of the Department's action; and
- (g) and a statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Any person may elect to pursue mediation by reaching a mediation agreement with all parties to the proceeding (which includes the Department and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Department's action or proposed action. The agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

The agreement to mediate must include the following:

- (a) the names, addresses, and telephone numbers of any persons who may attend the mediation;
- (b) the name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;
- (c) the agreed allocation of the costs and fees associated with the mediation;
- (d) the agreement of the parties on the confidentiality of discussions and documents introduced during mediation;
- (e) the date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;
- (f) the name of each party's representative who shall have authority to settle or recommend settlement;
- (g) either an explanation of how the substantial interests of each mediating party will be affected by the action or proposed action addressed in this action or a statement clearly identifying the petition for hearing that each party has already filed, and incorporating it by reference; and
- (h) the signatures of all parties or their authorized representatives.

As provided in section 120.573 of the Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by section 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above, and must therefore file their petitions within fourteen days of receipt of this notice. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under section 120.569 and 120.57 remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

This action is final and effective on the date filed with the Clerk of the Department unless a petition (or request for mediation) is filed in accordance with the above. Upon the timely filing of a petition (or request for mediation) this order will not be effective until further order of the Department.

Any party to the order has the right to seek judicial review of the order under section 120.68 of the Florida Statutes, by the filing of a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department.

Executed in Fort Myers, Florida.

STATE OF FLORIDA DEPARTMENT
ENVIRONMENTAL PROTECTION

David M. Knowles

David M. Knowles, P.E.
District Air Program Administrator
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881
(941) 458-4211

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on

January 27, 1997 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, under section 120.52 (7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

David M. Knowles
(Clerk)

1-27-97
(Date)

DMK/JRS/jw

Copies furnished to:

David Buff, P.E.

ATTACHMENT GSH-EU5-IV3
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT GSH-EU5-IV3 ALTERNATIVE METHODS OF OPERATION

Boiler No. 5 may simultaneously burn four different fuels: bagasse, residue, No. 6 residual oil, and small quantities of on-spec used oil. Small quantities of on-spec used oil contaminated soil that is generated on-site can be burned, as well as small quantities of hazardous materials under the BIF rule. Heat input from bagasse shall not exceed the permitted limit of 439.1 MMBtu/hr (maximum 24-hr average). Heat input from residue shall not exceed 386.4 MMBtu/hr (maximum 24-hr average). Heat input from fuel oil and on-spec used oil shall not exceed 301.9 MMBtu/hr (maximum 24-hr average) and 6.04 MMBtu/hr (annual average) (40 gallons per hour), respectively.

EMISSIONS UNIT INFORMATION

Section [6]

Boiler No. 8

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

**Section [6]
Boiler No. 8**

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Boiler No. 8

3. Emissions Unit Identification Number: **006**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: _____ MW

11. Emissions Unit Comment:
This boiler has a traveling grate, and is fired by bagasse, residue, and fuel oil. This emission unit produces steam for use in the production of raw sugar.

EMISSIONS UNIT INFORMATION

Section [6]

Boiler No. 8

Emissions Unit Control Equipment/Method: Control 1 of 2

1. Control Equipment/Method Description: Multi-Cyclone Dust Collector
2. Control Device or Method Code: 121

Emissions Unit Control Equipment/Method: Control 2 of 2

1. Control Equipment/Method Description: Impingement Type Wet Scrubber (2)
2. Control Device or Method Code: 115

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [6]

Boiler No. 8

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:
2. Maximum Production Rate: 264,000 lb/hr steam (24-hour average)
3. Maximum Heat Input Rate: 504.0 million Btu/hr
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: 24 hours/day 7 days/week 44 weeks/year 7,296 hours/year
6. Operating Capacity/Schedule Comment: The maximum rates are based on a 24-hour average. Maximum heat input based on burning bagasse. The maximum heat input rate from burning residue is 443.5 MMBtu/hr, and the maximum heat input rate from firing No. 6 fuel oil is 250.0 MMBtu/hr. Boiler operating pressure and temperature: 400 psig, 585°F. See Attachment GSH-EU6-B6. Maximum operating time during the off-season (April 16-October 12) is 120 days with only three boilers of Boiler Nos. 1, 2, 4, 5, and 8 operating at a time.

EMISSIONS UNIT INFORMATION

Section [6]

Boiler No. 8

C. EMISSION POINT (STACK/VENT) INFORMATION**(Optional for unregulated emissions units.)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: F (Boiler No. 8)		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 155 feet	7. Exit Diameter: 9.5 feet	
8. Exit Temperature: 150 °F	9. Actual Volumetric Flow Rate: 201,588 acfm	10. Water Vapor: 24 %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Stack parameters based on December 2009 stack test.			

EMISSIONS UNIT INFORMATION

Section [6]

Boiler No. 8

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Bagasse		
2. Source Classification Code (SCC): 1-02-011-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 31.50	5. Maximum Annual Rate: 229,824	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 16
10. Segment Comment: Maximum hourly tons burned on dry basis, based on 504.0 MMBtu/hr (24-hr average) and a heating value of 8,000 Btu/lb (dry) for bagasse. Maximum annual rate based on 7,296 hr/yr operations.		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Solid Waste: Residue		
2. Source Classification Code (SCC): 1-02-012-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 24.916	5. Maximum Annual Rate: 181,785	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 17.8
10. Segment Comment: Maximum hourly tons burned on a dry basis, based on 443.5 MMBtu/hr (24-hr average) and a heating value of 8,900 Btu/lb (dry) for bagasse residue. Maximum annual rate based on 7,296 hr/yr operations.		

EMISSIONS UNIT INFORMATION

Section [6]
Boiler No. 8

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Residual Oil: Grade 6 Oil		
2. Source Classification Code (SCC): 1-02-004-01		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 1.656	5. Maximum Annual Rate: 12,079	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 2.40	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: Based on 250.0 MMBtu/hr (24-hr average) and heating value of 151,000 Btu/gal for No. 6 fuel oil. Maximum annual rate based on 7,296 hr/yr operations.		

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers: Industrial: Liquid Waste: Waste Oil		
2. Source Classification Code (SCC): 1-02-013-02		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 0.04	5. Maximum Annual Rate: 75	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 151
10. Segment Comment: The used oil is generated solely by the facility, mostly during the repair season. The on-specification used oil is properly stored and burned in the boilers for energy recovery. The amount generated ranges between 50,000 and 75,000 gallons per year.		

EMISSIONS UNIT INFORMATION

Section [6]
Boiler No. 8

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	121	115	EL
PM10	121	115	NS
NOX			EL
VOC			EL
SO2	115		NS
CO			EL
H106 (Hydrochloric Acid)			NS
H115 (Methanol)			NS
H132 (Naphthalene)			NS
H151 (Polycyclic Organic Matter)			NS
Total HAPS			NS
PM2.5	121	115	NS

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [6]
Boiler No. 8

Page [1] of [4]
Particulate Matter - PM

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 75.6 lb/hour 276 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.15 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Carbonaceous fuel firing: 504.0 MMBtu/hr (24-hr average) x 0.15 lb/MMBtu = 75.6 lb/hr 75.6 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 275.8 TPY Fuel oil firing: 250.0 MMBtu/hr (24-hr average) x 0.10 lb/MMBtu = 25.0 lb/hr 25.0 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 91.2 TPY See Attachment GSH-EU6-F1.10			
11. Potential, Fugitive, and Actual Emissions Comment: Emission factor and potential emissions based on maximum heat input for carbonaceous fuel burning.			

EMISSIONS UNIT INFORMATION

Section [6]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [1] of [4]
Particulate Matter - PM

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.15 lb/MMBtu	4. Equivalent Allowable Emissions: 75.6 lb/hour 275.8 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990026-012-AV. The Equivalent Allowable Emissions were calculated as if only bagasse were being burned while the source achieves its maximum steam rate.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.10 lb/MMBtu	4. Equivalent Allowable Emissions: 25.0 lb/hour 91.2 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Rule 62-296.410(1)(b)2, F.A.C. The maximum allowable figures have been calculated as if only oil were being used at the maximum oil firing rate.	

Allowable Emissions Allowable Emissions ___ of ___

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [6]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [2] of [4]
Nitrogen Oxides - NOX

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: NOX		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 123 lb/hour 449 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 123 lb/hr Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 123 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 449 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Applies when firing any fuel type.			

EMISSIONS UNIT INFORMATION

Section [6]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [2] of [4]
Nitrogen Oxides - NOX

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 123 lb/hr	4. Equivalent Allowable Emissions: 123 lb/hour 449 tons/year
5. Method of Compliance: EPA Method 7 or 7E	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AC50-42476/PSD-FL-077 dated 10/28/81. Applies when firing any fuel type.	

Allowable Emissions Allowable Emissions of

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [6]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [3] of [4]
Volatile Organic Compounds - VOC

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 140 lb/hour 511 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 140 lb/hr Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 140 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 511 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Applies when firing any fuel type.			

EMISSIONS UNIT INFORMATION

Section [6]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [3] of [4]
Volatile Organic Compounds - VOC

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 140 lb/yr	4. Equivalent Allowable Emissions: 140 lb/hour 511 tons/year
5. Method of Compliance: EPA Methods 25A and 18 combined	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AC50-42476/PSD-FL-077 dated 10/28/81. Applies when firing any fuel type.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [6]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [4] of [4]
Carbon Monoxide - CO

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 2,772 lb/hour 10,112 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 5.5 lb/MMBtu Reference: Permit No. 0990026-012-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 504.0 MMBtu/hr (24-hr average) x 5.5 lb/MMBtu = 2,772 lb/hr 2,772 lb/hr x 7,296 hr/yr ÷ 2,000 lb/ton = 10,112 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Based on bagasse burning only.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 5.5 lb/MMBtu	4. Equivalent Allowable Emissions: 2,772 lb/hour 10,112 tons/year
5. Method of Compliance: EPA Method 10	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AC50-250421/PSD-FL-213 dated 6/4/96. Allowable emissions based on bagasse burning.	

Allowable Emissions Allowable Emissions of

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ___ of ___

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [6]

Boiler No. 8

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE30	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 30 % Exceptional Conditions: 40 % Maximum Period of Excess Opacity Allowed: 2 min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Rule 62-296.410(2)(b)1, F.A.C.	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [6]

Boiler No. 8

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 3

1. Parameter Code: PRS	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: See comment Model Number: See comment Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures total pressure drop across the wet scrubbers. South Scrubber Manufacturer: ABB Model No.: 2600T North Scrubber Manufacturer: ABB Model No.: 2600T	

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: See comment Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures inlet water flow to the wet scrubbers. South: Model No. 8711TSA040R1N061 North: Model No. 8711TSA040R1N061	

EMISSIONS UNIT INFORMATION

Section [6]

Boiler No. 8

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor **3** of **3**

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 1151DP4 Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Measures steam flow on Boiler No. 8.	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

Section [6]

Boiler No. 8

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU6-I1 <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU1-I2 <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU6-I3 <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU6-I4 <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU6-I5 <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT GSH-EU6-B6

MAXIMUM FUEL USAGE AND HEAT INPUT RATES

**Attachment GSH-EU6-B6. Maximum 24-Hour and Annual Heat Input and Fuel Usage Rates
Boiler No. 8, SCGCF, Belle Glade**

Fuel	Heat Transfer			Fuel Firing Rate	
	Heat Input to Boiler	Efficiency %	Heat Output to Steam	24-Hour	Annual
	Maximum Short-Term				
	(MMBtu/hr)		(MMBtu/hr)		
Bagasse	504	55.0	277.2	31.50 tons/hr ^a	229,824.0 TPY ^a
Residue	443.5	62.5	277.2	24.92 tons/hr ^b	181,785.2 TPY ^b
No. 6 Fuel Oil	250.0	62.5	156.3	1,656 gal/hr	12,079,470 gal/yr
<u>Max fuel firing + bagasse</u>					
Bagasse	219.9	55.0	121.0	13.7 tons/hr ^a	100,278.5 TPY ^a
Residue	0	62.5	0	0 tons/hr ^b	0.0 TPY ^b
No. 6 Fuel Oil	250.0	62.5	156.3	1,656 gal/hr	12,079,470 gal/yr
Total	469.9		277.2		
<u>Max fuel firing + Residue</u>					
Bagasse	0	55.0	0	0 tons/hr ^a	0.0 TPY ^a
Residue	193.5	62.5	120.9	10.87 tons/hr ^b	79,313.3 TPY ^b
No. 6 Fuel Oil	250.0	62.5	156.3	1,656 gal/hr	12,079,470 gal/yr
Total	443.5		277.2		

^a Based on bagasse firing.

^b Based on residue firing.

Notes:

Total steam production required = 264,000 lb/hr.

Net steam enthalpy = 1,050 Btu/lb.

Total heat output to steam = 264,000 lb/hr steam x 1,050 Btu/lb = 277.2 MMBtu/hr.

Fuels may be burned in combination, not to exceed total heat outputs.

Based on fuel heating values as follows:

Bagasse, dry - 8,000 Btu/lb

Residue, dry - 8,900 Btu/lb

No. 6 Fuel Oil - 151,000 Btu/gal



ATTACHMENT GSH-EU6-F1.10
CALCULATION OF EMISSIONS

Attachment GSH-EU6-F1.10. Maximum Hourly and Annual Emissions of Regulated Pollutants
Boiler No. 8, SCGCF, Belle Glade

Regulated Pollutant	Bagasse			Residue			Fuel oil			Max Fuel Oil, Remainder Bagasse	Max Fuel Oil, Remainder Residue	Maximum Hourly Emission Rate (lb/hr)	Maximum Annual Emission Rate ^e (TPY)			
	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref	Activity Factor ^a (MMBtu/hr)	Hourly Emissions (lb/hr)	Hourly Emissions ^b (lb/hr)	Hourly Emissions ^d (lb/hr)		
Particulate (PM)	0.15	1	504.0	75.6	0.15	1	443.5	66.5	0.10	1	250.0	25.0	39.4	54.0	75.6	275.8
Sulfur dioxide	0.06	3	504.0	30.2	0.674	5	443.5	299.0	2.607	2	250.0	651.7	657.4	782.1	782.1	2,853.1 ^c
Nitrogen oxides	-	-	-	-	-	-	-	-	-	-	-	-	-	-	123.0	448.7 ^f
VOC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140.0	510.7 ^f
Carbon Monoxide	5.50	-	-	-	-	-	-	-	-	-	-	-	-	-	2772.00	10,112.3 ^f

Notes:

- ^a Activity factor is based on maximum heat input rate.
- ^b Based on 250 MMBtu/hr max. heat input from fuel oil combustion and 219.9 MMBtu/hr heat input from bagasse combustion.
- ^c Total emissions of SO₂ from all operating boilers shall not exceed 14 tons per day.
- ^d Based on 250 MMBtu/hr max. heat input from fuel oil combustion and 193.5 MMBtu/hr heat input from residue combustion.
- ^e Based on 7,296 hr/yr operation.
- ^f Based on limit per permit No. 0990026-012-AV.

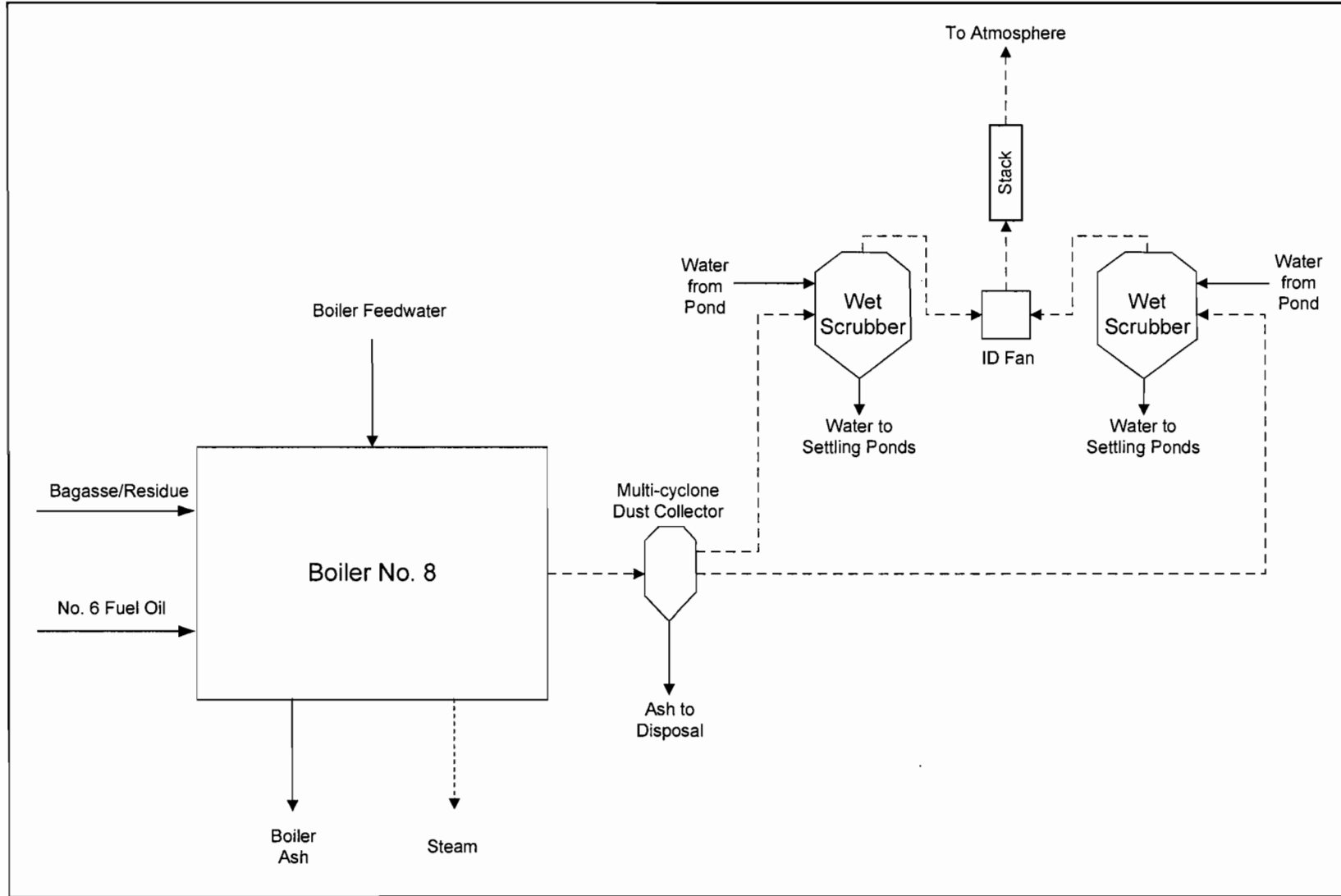
Unless otherwise specified, heating values for each fuel used are as follows: 3,600 Btu/lb for wet bagasse, 8,000 Btu/lb dry bagasse, 8,900 Btu/lb for dry residue, and 151,000 Btu/gal for No. 6 fuel oil.

References:

1. Emission factor from permit specific condition (Permit No. 0990026-012-AV).
2. Based on maximum 2.4% fuel sulfur content as specified in Permit No. 0990026-012-AV. No. 6 fuel oil has heating value of 151,000 Btu/gal and density of 8.2 lb/gal. Hourly emissions based on 2 lb SO₂ per lb of S and assuming all sulfur is emitted as SO₂ when firing fuel oil. Calculation: 2.4% sulfur + 151,000 Btu/gal x 8.2 lb/gal x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu = 2.607 lb/MMBtu.
3. Based on industry test data.
4. Emission factor of 47 lb per 1,000 gallon for NO_x due to fuel oil firing, from AP-42 Table 1.3-1. Calculation: 47 lb/1000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.31 lb/MMBtu.
5. Sulfur content of residue assumed to be 0.5% (dry), with 40% removal in wet scrubbers. Calculation: 1/8900 Btu/lb x 0.5% sulfur x 2 lb SO₂/lb S x 10⁶ Btu/MMBtu x 40% scrubber removal efficiency = 0.674 lb/MMBtu.
6. Emission factor of 0.28 lb per 1,000 gallon for VOC due to fuel oil firing, from AP-42 Table 1.3-3. Calculation: 0.28 lb/1000 gal + 151,000 Btu/gal * 10⁶ Btu/MMBtu = 0.00185 lb/MMBtu.



ATTACHMENT GSH-EU6-11
PROCESS FLOW DIAGRAM



Attachment GSH-EU6-11
Process Flow Diagram

Process Area: Boiler No. 6

Sugar Cane Growers Cooperative of Florida

Process Flow Legend:	
Solid / Liquid	→
Gas	- - - - -
Steam	- - - - -



ATTACHMENT GSH-EU6-13

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT GSH-EU6-I3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Sugar Cane Growers Cooperative of Florida
Boiler No. 8

Control equipment: Two impingement wet scrubbers. Parameters below apply to each scrubber.

Scrubbing Liquid:	Water
Inlet Water Pressure (psi):	40-100
Pressure Drop across Scrubber (inches H ₂ O):	2-10
Water Flow Rate (gpm):	100-300

ATTACHMENT GSH-EU6-14

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT GSH-EU6-I4 PROCEDURE FOR STARTUP/SHUTDOWN

Sugar Cane Growers Cooperative of Florida
Boiler No. 8

During startup and shutdown of the boilers, excess PM, opacity, NO_x, SO₂, CO, and VOC emissions for more than 2 hours in a 24-hour period are possible. Pursuant to Rule 62-210.700(1), F.A.C., the following procedures and precautions are taken to minimize the magnitude and duration of excess emissions during startup and shutdown of Boiler No. 8. Boiler room foreman and operating personnel have received proper training on emissions control procedures.

STARTUP INSTRUCTIONS

Note: Oil atomization will be provided initially by air until steam is available, for which arrangement must be made to have an air compressor available.

1. Connect hose from the air compressor to the boiler steam trap set located in the atomization steam header to provide oil atomization.
2. Turn on the electric oil heater, and set the temperature on 230°F; set the pressure on 80 psig, or between 80 and 90 psig.
3. Start re-circulating the soil through the system.
4. Open the superheater drains and vents.
5. Open the steam drum vent.
6. Open the drum inlet feed water valve and check valve.
7. Open the valve to drum pressure gauge.
8. Open valve to drum water columns.
9. Open the valve to drum automatic water level.
10. Close the continuous blowdown in tank.
11. Close the chemical feed pump valves.
12. Close the non-return valve and boiler main valve.
13. Close the soot blower header.
14. Close the feed water automatic by-pass valve.

In order to prepare to fire-up the boiler, do the following:

15. Start the ID fan. Keep the ID at -0.2" to -0.3" water.
16. Start the FD fan. Keep the FD at +0.2" water.
17. Start the dust collector.
18. Check the scrubber water level.
19. Turn on the water re-circulation pump.
20. Adjust the FD fan air to burner.
21. Start the burner.
22. Watch the steam drum pressure.

After three or three and a half hours, the steam drum pressure should be about 100 psig.

23. When the steam drum pressure reaches 100 psig, start warming the main header by slowly opening the drum main valve, and do the following:
24. Open valve to main oil burner header.
25. Switch from electric oil heater to steam oil heater, and turn off the electric oil heater.
26. Open valve to steam atomization system.
27. Switch from air atomization to steam atomization.
28. Disconnect compressor air line and turn off the compressor.
29. Open the continuous blowdown line.
30. Open the chemical feed line.
31. Start raising the steam drum pressure at a rate of 100 psig per hour, until the pressure reaches 400 psig.
32. Open the non-return valve to steam header.
33. Open the steam main valve to steam header.

After flow is stabilized, do the following:

34. Close the drum vent.
35. Close the superheater vents
36. Start feeding the boiler with bagasse.
37. The boiler is on-line.

Cold Start-Ups

Cold start-ups should not be made in less than 7 hours from the first fire to normal working pressure of about 400 psig. Normally, a cold start-up will require 7 to 12 hours to complete.

Warm Start-Ups

Warm start-ups with steam and hot water available can be made in less time, typically 2 to 7 hours, depending on the boiler operating conditions.

SHUTDOWN INSTRUCTIONS

1. The feeding of fuel oil and steam to the burners is discontinued.
2. The feeding of carbonaceous fuel to the furnace is discontinued.
3. Water flow to the scrubber is maintained until the ID fans are stopped. This must be done no less than two hours after the shutdown procedure starts.

ATTACHMENT GSH-EU6-15

**OPERATION AND MAINTENANCE PLAN FOR
CARBON MONOXIDE CONTROL**

ATTACHMENT GSH-EU6-I5

OPERATION AND MAINTENANCE PLAN FOR CARBON MONOXIDE CONTROL BOILER NO. 8

1.0 PLAN SCOPE

The Operation and Maintenance (O&M) plan for minimizing carbon monoxide (CO) emissions from Boiler No. 8 contains several elements. These elements are as follows:

- A. Combustion System
- B. Permitted Fuel Usage
- C. CO Control Method
- D. CO Control Device
- E. Personnel Training

2.0 COMBUSTION SYSTEM

Boiler No. 8 is designed to produce 264,000 pounds per hour (lb/hr) steam at 400 pounds per square inch, gage (psig). Process requirements demand operation of this boiler at or above 90 percent of design capacity most of the time. The combustion system consists of a traveling grate, spreader stoker boiler with bagasse/bagasse residue feed systems, and a fuel oil firing system. The bagasse/bagasse residue fuel feed system consists of fuel bins which drop the fuel via feed chutes onto the traveling grate. The fuel burns in suspension in the boiler, or on the grate at the bottom of the furnace.

3.0 PERMITTED FUEL USAGE

Boiler No. 8 is permitted to burn four fuels: bagasse, bagasse residue, No. 6 fuel oil, and small quantities of on-spec used oil. The permitted fuel burning rates are as follows:

Fuel	Utilization Rate	Heating Value	Heat Input (MMBtu/hr)
Bagasse	31.5 TPH, dry	8,000 Btu/lb	504.0
Bagasse residue	24.9 TPH, dry	8,900 Btu/lb	443.5
No. 6 fuel oil	1,656 gal/hr	151,000 Btu/gal	250.0
Waste Oil	40 gal/hr	151,000 Btu/gal	6.04

4.0 CO CONTROL METHOD

Good combustion practices (GCP) are to be implemented on Boiler No. 8 in order to minimize CO emissions to the extent practical. The amount of combustion air is one factor affecting bagasse combustion, and field data indicate that excess air levels above 70 percent at the stack outlet produce, on average, lower CO emission rates. An excess air level of 70 percent at the stack outlet is approximately equivalent to a flue gas oxygen level of 4 percent at the outlet of the boiler.

Steam production on the boiler must be maintained at desired levels in order to support the sugar mill activities. At certain times, due primarily to bagasse fuel characteristics (i.e., moisture content, etc.) excess air levels above 70 percent may adversely affect boiler operation, primarily steam production rate.

In order to minimize CO emissions without sacrificing proper boiler operation, "good combustion practices" shall be observed at all times. SCGCF's goal will be to maintain the flue gas oxygen content at or above 4 percent, depending upon fuel conditions. The oxygen level may fluctuate significantly above and below the 4 percent level.

SCGCF will implement GCP by installing and maintaining a continuous steam flow meter and flue gas oxygen analyzer on Boiler No. 8. The instrument readout will be located in the boiler control room to provide real time data to the boiler operator. An alarm system will be installed on the flue gas oxygen analyzer, set to trip whenever the oxygen content falls below 4 percent. Whenever the alarm is tripped, the boiler operators will make adjustments as necessary to maintain the GCP oxygen level, again consistent with meeting steam production demands. The boiler operators will be instructed in the use of the flue gas oxygen meter for combustion control, and in the procedures to undertake to maintain excess air levels.

5.0 CO CONTROL DEVICE

The flue gas oxygen meter for the boiler will consist of a digital readout meter that meets the following specifications (or equivalent):

Manufacturer: Rosemont

Model No.: OXT412411110001

Meter Operational Range: 0-25 percent

SCGCF will maintain the instruments properly and operate the equipment at all times except during equipment breakdown or malfunction. Any repairs will be performed as expeditiously as possible. Quarter calibrations of the equipment will be performed, and the results maintained on-site by SCGCF.

6.0 PERSONNEL TRAINING

Boiler operators and supervisors will be instructed in the operation of Boiler No. 8, consistent with the requirements to maintain GCP air levels as dictated in this O&M plan.

ATTACHMENT GSH-EU6-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

State of Florida Department of Environmental Protection Notice of Permit

In the matter of an
Application for Permit by:

DEP File No. AC 50-250421
PSD-FL-213
Palm Beach County

Mr. Jose F. Alvarez
Vice President of Planning & Plant Operations
Sugar Cane Growers Cooperative of Florida
Post Office Box 666
Belle Glade, Florida 33430

Enclosed is Permit Number AC 50-250421 (PSD-FL-213) for the construction (modification of the permit) of the existing No. 8 boiler which is fired with bagasse, bagasse residue, and No. 6 residual fuel oil. This boiler is located at your sugar mill in Belle Glade, Palm Beach County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 14 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
904-488-1344

Notice of Permit
Page Two
Sugar Cane Growers Cooperative

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed by certified mail before the close of business on 6-4-96 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

June Fisher 6-4-96
Clerk Date

Copies furnished to:

David Knowles, SD
Jewell Harper, EPA
John Bunyak, NPS
David Buff, KBN
James Stormer, PBCHU

Final Determination

Sugar Cane Growers Cooperative of Florida
Palm Beach County
Belle Glade, Florida

Boiler No. 8
Department Permit No. AC 50-250421
PSD-FL-213

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

May 28, 1996

FINAL DETERMINATION

Sugar Cane Growers Cooperative
AC 50-250421/PSD-FL-213

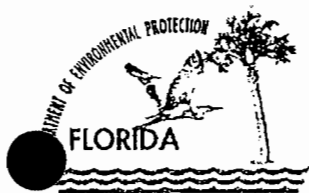
The Intent to Issue an air construction permit to Sugar Cane Growers Cooperative to increase the allowable carbon monoxide (CO) emissions from the bagasse/residue/fuel oil-fired Boiler No. 8 located at the sugar mill in Belle Glade, Palm Beach County, Florida, was distributed on November 28, 1995. The Notice of Intent to Issue was published in the Palm Beach Post on January 2, 1996.

At the applicant's request, the proposed permit was modified to correct an error in the hours per year the boiler could operate. This correction increased the tons per year CO emissions from the boiler. A second Notice of Intent which listed the higher CO emissions was published in the Palm Beach Post on April 19, 1996.

Copies of the evaluation were available for public inspection at the Palm Beach County Health Department in West Palm Beach and the Department's offices in West Palm Beach, Ft. Myers, and Tallahassee.

Comments on the Department's Intent were submitted by the applicant's engineer and the Palm Beach County Health Department. The applicant requested that the allowable steam parameters and heat inputs be added as a condition to the permit. This request was accepted and Specific Condition No. 3 was modified to add these restrictions. The County requested that Good Combustion Practices (GCP), which is used to optimize carbon monoxide emissions, be specified to assist them in determining compliance with that requirement. In response to this comment, the Department has incorporated an Operation and Maintenance Plan (O&M) into Specific Condition No. 6. Compliance with the O&M is acceptable as proof of GCP.

The final action of the Department will be to issue the construction permit as proposed except for the changes noted above.



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

PERMITTEE:

Mr. Jose F. Alvarez
Vice President of Planning
and Plant Operation

Sugar Cane Growers Cooperative
of Florida

Post Office Box 666

Belle Glade, Florida 33430

APIS No: 52FTM50002608

Permit Number: AC50-250421/PSD-FL-213

Expiration Date: March 31, 1997

County: Palm Beach

**Latitude/Longitude: 26°42'06"N
80°38'57"W**

Project: Boiler No. 8 Modification

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 62-212, 62-275, 62-296, and 62-297, Florida Administrative Code (F.A.C.). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and specifically described as follows:

This permit authorizes an increase allowable carbon monoxide (CO) emissions from the existing bagasse/residue/No. 6 residual fuel oil-fired Boiler No. 8 located at Sugar Cane Growers Cooperative of Florida's sugar mill. This mill is on West Sugar House Road in Belle Glade, Palm Beach County, Florida. The UTM Coordinates of this mill are Zone 17, 534.9 km E and 295 3.3 km N.

The modification shall be in accordance with the application received on May 6, 1994, and the additional information submitted with the letters from Hopping, Greene, Sams and Smith dated April 14, 1995 and August 30, 1995, except for the changes mentioned in the Technical Evaluation and Preliminary Determination and listed as Specific Conditions in this permit.

Attachments are listed below:

1. Application received May 6, 1994.
2. DEP May 19, 1994, letter.
3. DEP November 14, 1994, letter.
4. Hopping, Green, Sams & Smith December 20, 1994, letter.
5. Hopping, Green, Sams & Smith March 31, 1995, letter.
6. Hopping, Green, Sams & Smith April 14, 1995, letter.
7. Hopping, Green, Sams & Smith August 30, 1995, letter.
8. KBN February 1, 1996, letter.

PERMITTEE:
Sugar Cane Growers Coop.

Permit Number: AC50-250421/PSD-FL-213
Expiration Date: March 31, 1997

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither 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. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use 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.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of

PERMITTEE:
Sugar Cane Growers Coop.

Permit Number: AC50-250421/PBD-FL-213
Expiration Date: March 31, 1997

GENERAL CONDITIONS:

credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. 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 provide the Department with the following information:

- a. A description of and cause of non-compliance; and,
- b. The period of noncompliance, including 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 for revocation of this permit.

9. 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 involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.

PERMITTEE:
Sugar Cane Growers Coop.

Permit Number: AC50-250421/PSD-FL-213
Expiration Date: March 31, 1997

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (X) Determination of Best Available Control Technology (BACT)
- (X) Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained 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 dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used;
- the results of such analyses.

PERMITTEE:
Sugar Cane Growers Coop.

Permit Number: AC50-250421/PSD-FL-213
Expiration Date: March 31, 1997

SPECIFIC CONDITIONS:

1. This permit supersedes permit No. AC50-42476, issued October 28, 1981, and its revisions dated November 16, 1981. Except for the changes that follow in Specific Condition No. 3, 4, 5, 6 and 7 the provision of amended permit No. AC 50-42476 and permit No. PSD-FL-077 are incorporated as a condition of this air construction permit.

2. This permit modified only the steam production parameters, stack heights for boiler Nos. 2, 3, and 5 and the allowable carbon monoxide (CO) emission limits and CO testing requirements for Boiler No. 8. Boiler No. 8 remains subject to all other previous permit conditions, permit modifications, and regulations, including Rule 62-296.570, F.A.C. - Requirements for major VOC and NO_x - Emissions Facilities.

3. The allowable operation parameters for Boiler No. 8 are summarized in the following table:

Steam Pressure (psig)	Steam Temperature (°F)	Fuel Burned	Steam Production (lb/hr)	Heat Input (MMBtu/hr)	Amount of Fuel Consumed (lb/hr)
400	585	Bagasse	264,000	504.0 (a)	63,000 (a)
		Bagasse Residue	264,000	443.5 (b)	49,831 (b)
600	740	Bagasse	242,100	504.0 (a)	63,000 (a)
		Bagasse Residue	242,100	443.5 (b)	49,831 (b)
400	740	Bagasse	240,000	504.0 (a)	63,000 (a)
		Bagasse Residue	240,000	443.5 (b)	49,831 (b)

(a)Based upon 55% thermal efficiency and 8,000 Btu/lb (dry) while burning bagasse.

(b)Based upon 62.5% thermal efficiency and 8,900 Btu/lb while burning bagasse residue.

4. The allowable carbon monoxide emission limits listed in Specific Condition No. 2 of permit No. AC 50-42476 are changed from 140 lbs/hr and 511 tons per year (TPY) to 5.5 lbs/MMBtu heat input (assuming boiler has a thermal efficiency of 55% when burning bagasse), 2,772 lbs/hr (average of 3 runs of a minimum of 1 hour

PERMITTEE:
Sugar Cane Growers Coop.

Permit Number: AC50-250421/PSD-FL-213
Expiration Date: March 31, 1997

SPECIFIC CONDITIONS:

per run by EPA method 10 as described in 40 CFR 60, Appendix A), and 10,112 TPY based on a maximum of 7,296 hours per year operation. Crop season operation may last a maximum of 184 days while off-season operation may last a maximum of 120 days.

5. The CO emissions from Boiler No. 8 shall be measured annually by EPA Method 10 as described in 40 CFR 60, Appendix A. Test reports shall be submitted to the Department's South District office and the Palm Beach County Public Health Unit within 45 days of completion of the test.


6. The permittee shall install, maintain and operate an alarm system on Boiler No. 8 that will be triggered whenever the boiler oxygen level drops below 4 percent. The time the boiler operates with less than 4 percent oxygen shall be logged and may be used as a basis to modify the Operation and Maintenance Plan. The permittee shall use the Operation and Maintenance Plan for Carbon Monoxide Control for Boiler No. 8 (Revised February 1, 1996).

7. The stack heights on Boiler Nos. 2 and 5 shall be increased to a minimum of 150 feet above ground elevation. The stack height on Boiler No. 3 shall be increased to a minimum of 90 feet above ground elevation. These stacks shall be equipped with testing facilities meeting the requirements of Rule 62-297.345(3), F.A.C., Test Facilities.

8. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. (Rule 62-4.090, F.A.C.)

9. A timely application for a Title V operation permit must be submitted to the Department's South District office by the date specified in Rule 62-213, F.A.C.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**



Howard L. Rhodes, Director
Division of Air Resources
Management

Best Available Control Technology (BACT) Determination
Sugar Cane Growers Cooperative of Florida

AC 50-250421
PSD-FL-213

The Sugar Cane Growers Cooperative of Florida requested the carbon monoxide (CO) emission limit for Boiler No. 8 at the existing sugar mill in Belle Glade, Palm Beach County, Florida, be increased from 0.28 lbs CO/MMBtu heat input to 6.0 lbs CO/MMBtu heat input. The request followed a Department change in the required test method to demonstrate compliance with the CO emission limit. The revised emission limit adopted by the Department is based on actual EPA Method 10 test data on Boiler No. 8. The increase in allowable emissions is not associated with any change in production or operation of the boiler. The emissions of all other air pollutants are not affected by this request.

The higher allowable emission rate requested will result in an apparent increase in CO emissions above the significant emission rate of 100 TPY. This subjects the facility to the Prevention of Significant Deterioration (PSD) new source review regulations. These regulations require a BACT determination to be made for CO for the boiler.

Date of Receipt of a BACT Application:

May 6, 1994

Date Application Complete

August 30, 1995

BACT Requested by the Applicant:

The BACT determination for CO requested by the applicant is 6.0 lbs CO/MMBtu heat input. For the 504 MMBtu/hr bagasse/residue/No. 6 residual fuel oil-fired boiler, this will result in 3,024 lbs CO/hr emissions. For a 7,296 hour per year operation, this is equivalent to 11,032 tons CO emissions during any 12 consecutive month period. The CO emission limit of 6.0 lbs/MMBtu is to be achieved by Good Combustion Practices (GCP) of the boiler. Compliance is to be determined using EPA Reference Method 10 as described in 40 CFR 60, Appendix A.

BACT Determination Procedure:

In accordance with Rule 62-212.410, Florida Administrative Code, Best Available Control Technology Determination, Stationary Source-Preconstruction Review, this BACT determination is based on

the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of BACT pursuant to 40 CFR 52.21, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission unit in question the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically infeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT Determined by the Department:

CO emissions from Boiler No. 8 shall be minimized through Good Combustion Practices (GCP). CO emissions shall not exceed 5.5 lbs/MMBtu and, based on a maximum allowable heat input of 504 MMBtu/hr, 2,772 lbs/hr (1-hr max.). CO emissions during any consecutive 12-month period shall not exceed 10,112 tons (based on a maximum allowable 6-hr average of 504 MMBtu/hr heat input and 7,296 hrs/yr operation). Compliance shall be determined using EPA Reference Method 10 as described in 40 CFR 60, Appendix A. These emission limits shall be achieved through GCP of the boiler.

BACT Determination Rationale:

The applicant implemented a GCP program pursuant to the original BACT determination for this boiler that was made in 1981. Test data using the Department-specified "wet" CO test method (EPA Method 3) indicated compliance with the emission limit of 0.28 lbs/MMBtu set by the Department as BACT. Subsequently the applicant was required to use a more recently adopted instrumental method (EPA Method 10) to measure CO emissions. The result was that previously undetectable CO was measured and found to be substantially higher than believed by the applicant and the Department.

The basis for this modification was to determine what level of CO emission control can be achieved without unreasonably expensive boiler modification. However, compliance with other PSD parameters, such as maximum predicted ground-level concentration, was required.

The applicant submitted information indicating the high CO emissions from this boiler are due to the short residence time of the combustion gases in the furnace area. Based on emission data, they concluded that CO emissions averaged 2.3 lbs/MMBtu. Maximum measured CO emissions were 5.4 lbs/MMBtu. The requested limit of 6.0 lbs/MMBtu, is to be achieved through GCP.

The applicant investigated the use of combustion controls, retrofitting a flue gas recirculation system (FGR), use of a CO oxidation system, and drying the bagasse prior to burning (at the Department's request).

Boiler vendors stated that the high CO level for this boiler was due to the low residence time of the flue gases in the boiler. Higher residence times would allow for more complete combustion. Newer boilers have up to twice the volume of this existing boiler.

Retrofitting a flue gas recirculation (FGR) system to the existing boiler would be difficult and expensive (\$1,400,000 capital cost + \$1,000,000 annual operation cost). The CO reduction by a FGR system was unknown and potentially no reduction would be achieved. No bagasse boiler in Florida is using FGR.

Oxidation catalyst systems require elevated temperatures and low particulate matter loading. This boiler's flue gas temperature is too low and the particulate matter loading is too high to use an oxidation catalyst. No bagasse boiler in Florida uses an oxidation catalyst system.

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AC 50-250421 - PSD-FL-213
Page Four

Drying the bagasse prior to burning was considered unproven technology. No data was available to show a CO reduction from this approach.

The newer bagasse boilers with larger furnaces have lower CO emission rates. Expanding the volume of the existing boiler is not considered feasible. Through elimination of add-on controls, the Department is left with GCP as BACT to control CO emissions from this existing boiler. Most of the time, GCP will result in operation of the boiler under high excess air conditions and will result in CO emissions of less than 3 lbs/MMBtu. Under the best conditions (relatively dry bagasse, etc.) CO emissions will be less than 2 lbs/MMBtu. The Department has no information to suggest that this boiler is designed significantly differently from the other bagasse boilers that were given a similar limit.

The Department believes that if this boiler is operated properly, it should be able to consistently meet the CO concentration that was measured during actual tests on this boiler. The BACT determination for Boiler No. 8 is established as GCP with emissions not to exceed 5.5 lbs CO/MMBtu.

Conclusion

For a CO emission standard of up to 6.0 lbs/MMBtu (originally proposed by the applicant), the ambient air impact will be below the ambient air standards provided that the heights of the stacks on Boiler Nos. 2, 3, and 5 are increased to 150, 90, and 150 feet elevation respectively. The Department proposal is achievable by GCP and provides an additional margin of safety to protect the ambient air quality standard for CO.

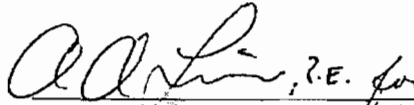
BACT-SCGCF
AC 50-250421 - PSD-FL-213
Page Five

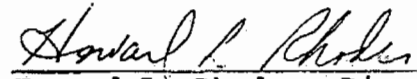
Details of the Analysis May be Obtained by Contacting:

A. A. Linero, P.E., Administrator
W. M. Hanks, Review Engineer
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:

Approved by:


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


Howard L. Rhodes, Director
Division of Air Resources Mgmt.

June 3, 1996
Date

June 3, 1996
Date

Attachments Available Upon Request

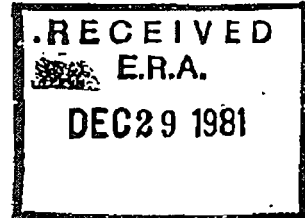


6
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

DEC 4 1981



REF: 4AH-AF

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

Re: PSD-FL-077

Dear Mr. Arias:

Review of your April 27, 1981, application to construct a new bagasse boiler at your existing plant near Belle Glade, 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 11, 1981. Only comments from your company and the US EPA were submitted.

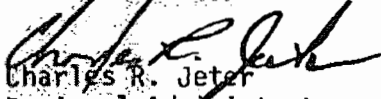
Authority to construct a stationary source is hereby granted for the facility described above, subject to the conditions in the permit to construct (enclosed). This authority to construct is based solely on the requirements of 40 CFR 52.21, the federal regulations governing significant deterioration of air quality. It does not apply to NPDES or 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.

2

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30385

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),

Sugar Cane Growers Cooperative
P.O. Box 666
Belle Glade, Florida 33430

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

Sugar Cane Growers Cooperative's existing plant site located about a mile east northeast of Belle Glade, Palm Beach County, Florida

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

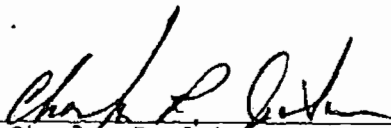
Upon completion of this authorized construction and commencement of operation/production, this stationary source shall be operated in accordance with the emission limitations, sampling requirements, monitoring requirements, and other conditions set forth in the attached Specific Conditions (Part I) and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

TWIN TOWERS OFFICE BUILDING
2800 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



4
BOB GRAHAM
GOVERNOR
Victoria J. Tschinke
SECRETARY

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.

PAGE 1 OF 6

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 in 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. 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 (324)*
SO ₂		14.0 ⁺	
CO ₂	140		326
VOC	140		325
NO _x	123		209

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

MIT NO.: AC 50-42476
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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 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.

9

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(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 28 day of October, 1981

 Pages Attached.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

[Signature]
Signature

PAGE 6 OF 6

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)

Note: Pgs. 11 and 12 were duplicates of pgs 14 + 15

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. The applicant shall submit for approval by EPA and FDER, a TSP post-construction continuous ambient monitoring plan prior to startup of the subject facilities in this permit. This plan should meet all of the requirements and procedures as stated in the "Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)," EPA-450/4-80-012, Nov. '80 and the quality assurance procedures of 40 CFR 58, Appendix B. Such monitoring shall be continued until such time as the effects of this modification on the ambient air quality have been quantified and determined to be well within the limitations of the short term secondary standard for particulates.

10. 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
US Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, GA 30365

11. 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.

ATTACHMENT GSH-EU6-IV3
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT GSH-EU6-IV3
ALTERNATIVE METHODS OF OPERATION

Boiler No. 8 may simultaneously burn four different fuels: bagasse, residue, No. 6 residual oil, and small quantities of on-spec used oil. Small quantities of on-spec used oil contaminated soil that is generated on-site can be burned, as well as small quantities of hazardous materials under the BIF rule. Heat input from bagasse shall not exceed the permitted limit of 504 MMBtu/hr (maximum 24-hr average). Heat input from residue shall not exceed 443.5 MMBtu/hr (maximum 24-hr average). Heat input from fuel oil and on-spec used oil shall not exceed 250 MMBtu/hr and 6.04 MMBtu/hr (40 gallons per hour), respectively.

EMISSIONS UNIT INFORMATION

Section [7]

Spray Booth

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [7]

Spray Booth

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Description of Emissions Unit Addressed in this Section: Spray Booth			
3. Emissions Unit Identification Number: 007			
4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20
8. Federal Program Applicability: (Check all that apply)			
<input type="checkbox"/> Acid Rain Unit			
<input type="checkbox"/> CAIR Unit			
9. Package Unit: Manufacturer:		Model Number:	
10. Generator Nameplate Rating:		MW	
11. Emissions Unit Comment: The Spray Booth is used to apply petroleum-based protective coatings and paint to sugarcane trailers and to sugarcane wagons.			

EMISSIONS UNIT INFORMATION

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Spray Booth

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [7]

Spray Booth

**C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: Spray Booth		2. Emission Point Type Code: 4			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:					
5. Discharge Type Code: F		6. Stack Height: feet		7. Exit Diameter: feet	
8. Exit Temperature: °F		9. Actual Volumetric Flow Rate: acfm		10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm			12. Nonstack Emission Point Height: feet		
13. Emission Point UTM Coordinates... Zone: East (km): North (km):			14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)		
15. Emission Point Comment:					

EMISSIONS UNIT INFORMATION

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Spray Booth

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 5

1. Segment Description (Process/Fuel Type): Surface Coating Operations: Surface Coating: Miscellaneous: MCM Black Enamel		
2. Source Classification Code (SCC): 4-02-999-95		3. SCC Units: Tons solvent in coating
4. Maximum Hourly Rate: 0.047	5. Maximum Annual Rate: 45.6	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: The maximum annual rates have been calculated as if only MCM Black Enamel were being used while the unit emits at its maximum allowable emission rate of 50 lb/hr or 24 TPY of VOC.		

Segment Description and Rate: Segment 2 of 5

1. Segment Description (Process/Fuel Type): Surface Coating Operations: Surface Coating: Miscellaneous: MCM Gloss Black Latex		
2. Source Classification Code (SCC): 4-02-999-95		3. SCC Units: Tons solvent in coating
4. Maximum Hourly Rate: 0.179	5. Maximum Annual Rate: 171.4	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: The maximum annual rates have been calculated as if only MCM Gloss Black Latex were being used while the unit emits at its maximum allowable emission rate of 50 lb/hr or 24 TPY of VOC.		

EMISSIONS UNIT INFORMATION

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Spray Booth

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 3 of 5

1. Segment Description (Process/Fuel Type): Surface Coating Operations: Surface Coating: Miscellaneous: Dimension Reducer		
2. Source Classification Code (SCC): 4-02-999-96		3. SCC Units: Tons solvent
4. Maximum Hourly Rate: 0.035	5. Maximum Annual Rate: 33.9	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Dimension Reducer is used as a solvent; however, the maximum annual rates have been calculated as if only Dimension Reducer were being used while the unit emits at its maximum allowable emission rate of 50 lb/hr or 24 TPY of VOC.		

Segment Description and Rate: Segment 4 of 5

1. Segment Description (Process/Fuel Type): Surface Coating Operations: Surface Coating Application: General: Paint: Water-Base: DTM Acrylic Gloss Black (Sherwin-Williams B66B11)		
2. Source Classification Code (SCC): 4-02-002-10		3. SCC Units: Gallons of coating
4. Maximum Hourly Rate: 72.46	5. Maximum Annual Rate: 69,565	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: The maximum annual rates have been calculated as if only DTM Acrylic Gloss were being used while the unit emits at its maximum allowable emission rate of 50 lb/hr or 24 TPY of VOC.		

EMISSIONS UNIT INFORMATION

**Section [7]
Spray Booth**

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment **5** of **5**

1. Segment Description (Process/Fuel Type): Surface Coating Operations: Surface Coating Application: General: Paint: Solvent-Base: Alkyd Enamel (Sherwin-Williams)		
2. Source Classification Code (SCC): 4-02-001-10		3. SCC Units: Gallons of coating
4. Maximum Hourly Rate: 13.66	5. Maximum Annual Rate: 13,114.8	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: The maximum annual rates have been calculated as if only Alkyd Enamel were being used while the unit emits at its maximum allowable emission rate of 50 lb/hr or 24 TPY of VOC.		

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION

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Spray Booth

POLLUTANT DETAIL INFORMATION

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Volatile Organic Compounds - VOC

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 50 lb/hour 24 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: Reference: Permit No. 0990026-12-AV		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: See Attachment GSH-EU7-F1.10 for individual material VOC potential emissions.			
11. Potential, Fugitive, and Actual Emissions Comment: Some VOCs reported are also HAPS, and are being accounted for as well.			

EMISSIONS UNIT INFORMATION

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Spray Booth

POLLUTANT DETAIL INFORMATION

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Volatile Organic Compounds - VOC

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 50 lb/hr	4. Equivalent Allowable Emissions: 50 lb/hour 24 tons/year
5. Method of Compliance: Recordkeeping of material inventory and use on a daily basis.	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. AC50-222810 dated 2/16/93.	

Allowable Emissions Allowable Emissions of

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ___ of ___

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

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Spray Booth

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Rule 62-296.320(4)(b).	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

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H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor of

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor of

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

**Section [7]
Spray Booth**

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: GSH-EU7-11 <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT GSH-EU7-B6

OPERATING CAPACITY/SCHEDULE COMMENT

**Attachment GSH-EU7-B6. Annual and Short-Term Material Usage
Spray Booth, SCGCF, Belle Glade**

Material	VOC Content ^a (%)	Density ^a (lb/gal)	Maximum VOC Emission ^b		Maximum Hourly Consumption ^c			Maximum Annual Consumption ^c	
			Hourly lb/hr	Annual TPY	lb/hr	ton/hr	gal/hr	TPY	gal/yr
Dimension Reducer (Instead of Xylol) ^d	70.71	6.83	50.0	24.0	70.71	0.035	10.35	33.9	9,937.9
DTM Acrylic Gloss	8.06	8.56	50.0	24.0	620.29	0.310	72.46	297.7	69,565.2
Alkyd Enamel	45.4	8.07	50.0	24.0	110.25	0.055	13.66	52.9	13,114.8
MCM Black Enamel ^d	52.7	7.50	50.0	24.0	94.90	0.047	12.66	45.6	12,151.9
MCM Gloss Black Latex ^d	14.0	8.64	50.0	24.0	357.02	0.179	41.32	171.4	39,669.4

TPY = tons per year

Notes:

^a Based on MSDS's contained in GSH-EU7-IV3.

^b Based on permitted VOC limits.

^c Maximum operating rates were calculated as if only that material were being used while the unit emits at its maximum VOC emissions.

^d New Product.



ATTACHMENT GSH-EU7-F1.10
CALCULATION OF EMISSIONS

**Attachment GSH-EU7-F1.10. Calculation of VOC Emissions
Spray Booth, SCGCF, Belle Glade**

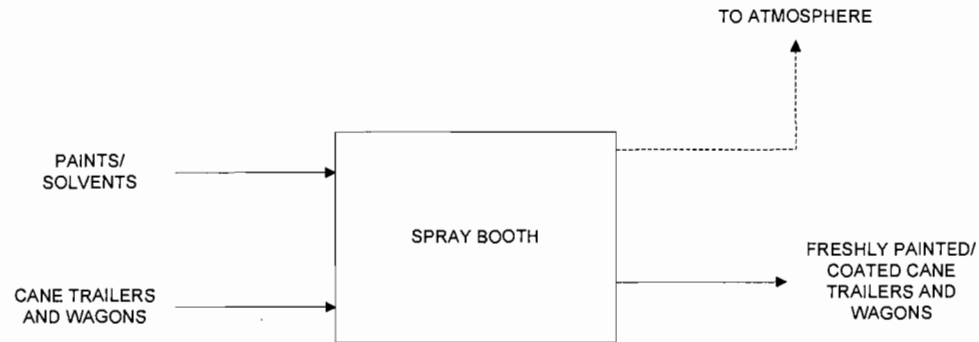
Material ^a	Product Density ^b (lb/gal)	Maximum Usage Rate ^c		VOC Content ^b (lb/gal)	Maximum Emissions ^g	
		gal/wk	gal/yr		lb/hr	TPY
Dimension Reducer (instead of Xylol) ^f	6.83	9.0	288	6.91	1.24	1.00
DTM Acrylic Gloss ^d	8.56	107.7	3,446	1.65	3.55	2.84
Alkyd Enamel ^e	8.07	71.8	2,298	3.66	5.26	4.20
MCM Black Enamel	7.50	195.0	6,240	3.95	15.41	12.32
MCM Gloss Black Latex	8.64	195.0	6,240	1.21	4.72	3.78

TPY = tons per year

Footnotes:

- ^a These coatings will be used to coat or paint sugar-cane trailers and wagons.
- ^b See Attachment GSH-EU7-IV3 for MSDS product information.
- ^c Maximum usage (gal/yr) based on maximum of 32 weeks of operation.
Maximum usage (gal/wk) based on probable usage of 23 weeks of operation, 565 cane trailers, 188 cane wagons, 7 gallons of paint/solvent per each trailer, and 2.5 gallons of paint/solvent per each wagon.
Number of cane trailers each week = 565 trailers / 23 weeks = 25 trailers/week
Number of cane wagons each week = 188 wagons / 23 weeks = 8 wagons/week
- ^d Only 60% of trailers and wagons coated with DTM Acrylic Gloss.
- ^e Only 40% of trailers and wagons coated with Alkyd Enamel.
- ^f For use with Alkyd Enamel (1 gallon Reducer for every 8 gallons of Alkyd Enamel = 9.0 gal/week)
- ^g Based on 10 hours/day, 5 days/week, 32 weeks/year, and 1,600 hours/year.

ATTACHMENT GSH-EU7-11
PROCESS FLOW DIAGRAM



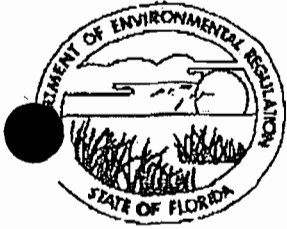
Attachment GSH-EU7-11
Spray Booth
Process Flow Diagram
Sugar Cane Growers Cooperative of Florida
Belle Glade, Florida

Process Flow Legend
Solid/Liquid ———>
Gas - - - - ->
Steam - - - - ->



ATTACHMENT GSH-EU7-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS



Florida Department of Environmental Regulation

Southeast District • P.O. Box 15426 • West Palm Beach, Florida 33416

Lawton Chiles, Governor

1900 S. Congress Ave., Suite A

Virginia B. Wetherell, Secretary

Telephone: 407/433-2650

Fax: 407/433-2666

FEB 16 1993

RECEIVED FEB 18 1993

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT ISSUANCE

CERTIFIED MAIL

In the Matter of an Application
for Permit by:
Mr. Jose P. Alvarez
Vice President, Planning & Plant Operations/
Sugar Cane Growers Cooperative of Florida
P. O. Box 666
Belle Glade, Florida 33430

DER File No. AO 50-222810
Palm Beach County

Spray Booth

Enclosed is Permit Number AO 50-222810 to operate an air pollution source issued pursuant to Section 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

FEB 16 1993

Mr. Jose P. Alvarez
 Sugar Cane Growers Cooperative
 of Florida
 Belle Glade, Florida 33430

DER Permit No. AO 50-222810

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C. This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT
 OF ENVIRONMENTAL REGULATION

Mary E. B. Williams
 Mary E. B. Williams
 Director of District Management
 P. O. Box 15425
 West Palm Beach, FL 33416
 407/433-2650

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on FEB 16 1993 to the listed persons.

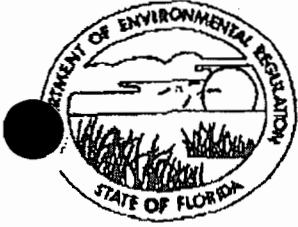
Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Maria Lindsey
 (Clerk)

FEB 16 1993
 (Date)

Copies furnished to: Palm Beach County Public Health Unit
 DER-South District



Florida Department of Environmental Regulation

Southeast District • P.O. Box 15425 • West Palm Beach, Florida 33416

Lawton Chiles, Governor

1900 S. Congress Ave., Suite A

Virginia B. Wetherell, Secretary

Telephone: 407/433-2650

Fax: 407/433-2666

FEB 16 1993

PERMITTEE:

Mr. Jose F. Alvarez
Vice President Planning &
Plant Operations, Sugar Cane
Growers Cooperative of Florida
P.O. Box 666
Belle Glade, Florida 33430

I.D. NUMBER: 52/FTM/50/0026/09

PERMIT/CERTIFICATION NUMBER: AO 50-222810*

DATE OF ISSUE: FEB 16 1993

EXPIRATION DATE: February 15, 1998

COUNTY: Palm Beach

LATITUDE/LONGITUDE: 26°42'06"N/80°38'57"W

UTM: Zone 17; 534.9 Km. E; 2953.3 Km. N

PROJECT: Sugar Cane Growers Cooperative
of Florida
Spray Booth

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule 17-296, and in conformance with all existing regulations of the Florida Department of Environmental Regulation. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

OPERATE: An air pollution source consisting of a facility to apply petroleum based products on cane trailers and cane wagons using an airless sprayer.

IN ACCORDANCE WITH: Certificate of Completion of Construction received December 9, 1992; Application to Construct Air Pollution Source received January 13, 1992; supplemental information received February 17, 1992; and Permit No. AC 50-206962 issued May 21, 1992 (none are attached).

LOCATED AT: West Sugarhouse Road, Belle Glade, Palm Beach County, Florida.

TO SERVE: A sugar cane processing facility (SIC #2061).

SUBJECT TO: General Conditions 1-14. and Specific Conditions 1-6.

*This permit supersedes permit no. AC 50-206962 issued May 21, 1992.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither 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. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use 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.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

- (a) Have access to and copy any records that must be kept under the conditions of the permit;
- (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If the permittee does not comply with or will be unable to comply with any condition or limitation specified in the permit, the permittee shall immediately notify and provide the Department with the following information:

(a) Description of and cause of noncompliance; and

(b) Steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. 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 for revocation of this permit.


GENERAL CONDITIONS:

9. 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The 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.
11. This permit is transferable only upon Department approval in accordance with Rule 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. The permittee shall comply with the following :
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.
- (b) The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit.
These materials shall be retained 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.
14. 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 the 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.

PERMITTEE:
Mr. Jose F. Alvarez
Sugar Cane Growers of Florida
Belle Glade, Florida 33430

I.D. NUMBER: 52/FTM/50/0026/09
PERMIT/CERTIFICATION NUMBER: AO 50-222810
DATE OF ISSUE: FEB 16 1993
EXPIRATION DATE: February 15, 1998

SPECIFIC CONDITIONS:

1. Emission limiting standards are as follow:
 - a) In accordance with Florida Administration Code Rule 17-296.320(1) - No person shall store, pump, handle, process, load, unload or use in any process or installation volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
 - b) In accordance with Florida Administration Code Rule 17-296.320(2) - No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
 - c) The facility shall not emit more than 21 tons/year volatile organic compounds (VOCs) nor more than 50 lbs. VOCs per hour.
 - d) The facility is limited to using the following volatile organic compounds and solvents unless they apply to modify this permit.

2. On or before March 1 of each calendar year, a completed DER Form 17-210.900(4), Annual Operations Report Form for Air Emissions Sources shall be submitted to the Department.
3. The operation of the sources covered by this permit shall be limited to 10 hours/day, 5 days/week, and 32 weeks/year.
4. Copies of all reports, tests, notifications or other submittals required by this permit shall be submitted to both the Department of Environmental Regulation, Southeast District Office and Palm Beach County Public Health Unit.
5. The facility shall keep a log with the following information:
 - a) The number of hours the coating facility is in use (actual) on a daily basis;
 - b) The dates of operation;
 - c) The amounts and types of coatings used on a daily basis;
 - d) The number of trailers and/or wagons coated on a daily basis; and
 - e) A monthly inventory of the volatile organic compounds and solvents used in the application facility.

PERMITTEE:
 Mr. Jose F. Alvarez
 Sugar Cane Growers of Florida
 Belle Glade, Florida 33430

I.D. NUMBER: 52/PTM/50/0026/09
 PERMIT/CERTIFICATION NUMBER: AO 50-222810
 DATE OF ISSUE: FEB 16 1993
 EXPIRATION DATE: February 15, 1998

SPECIFIC CONDITIONS:

6. The permittee shall be aware of and operate under the attached "General Permit Conditions #1 thru #14." General Permit Conditions are binding upon the permittee and enforceable pursuant to Chapter 403 of the Florida Statutes.

Issued this 12th day of February, 1993

STATE OF FLORIDA
 DEPARTMENT OF ENVIRONMENTAL REGULATION

Mary E. Williams
 Mary E. Williams
 Director of District Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on FEB 16 1993 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Maria Landry
 (Clerk)

FEB 16 1993
 (Date)

ATTACHMENT GSH-EU7-IV3
ALTERNATIVE METHODS OF OPERATION

**ATTACHMENT GSH-EU7-IV3
ALTERNATIVE METHODS OF OPERATION
SPRAY BOOTH**

Operation is seasonal during off-sugar cane season, generally from April through October. The following materials and/or any combination are used (see Attachment GSH-EU7-B6):

Maximum Consumption ¹		
	Tons/hr	Tons/yr
MCM Black Enamel	0.047	45.6
MCM Gloss Black Latex	0.179	171.4
Dimension Reducer	0.035	33.9
Acrylic Gloss	0.31	297.7
Alkyd Enamel	0.055	52.9

Operating Period: April through October
32 weeks, 5 days/week, 10 hours/day

For any of the above materials or combination, the source shall not emit more than 24 TPY or 50 lb/hr of VOC.

Notes:

¹ The maximum operating rates were calculated as if only that material were being used while the source achieves its maximum allowable VOC emission; in this case 50 lb/hr or 24 TPY.

MATERIAL ANALYSIS

Dimension Reducer

Ingredients:

Acetone:	29% (CAS# 67-64-1)
Methyl Ethyl Ketone	10% (CAS# 78-93-3)
Methyl n-Amyl Ketone	49% (CAS# 110-43-0)
Ethyl 3-Ethoxypropionate	8% (CAS# 763-69-9)
2-Butoxyethyl Acetate	3% (CAS# 112-07-2)
Density @ 75°F:	6.83 lb/gal
% Volatile by Weight:	99%
Flash Point:	21°F

MCM Black Enamel

Ingredients:

Stoddard solvent/Mineral spirits:	20% varies (CAS# 8052-41-3)
Alkyl Quaternary Ammonium Montmorillonite/Clay:	<5% (CAS# 68953-58-2)
VMGP Naptha	2% (CAS# 64742-48-9)
Density:	7.5 lb/gal
Specific gravity 60/60°F:	0.9
% Volatile by Weight:	99%
Flash Point:	53°F

MCM Gloss Black Latex

Ingredients:

Ammonium Hydroxide:	.10% (CAS# 1336-21-6)
DB Solvent:	2.5% (CAS# 112-34-5)
Butyl Cellosolve	3.5% (CAS# 000111-76-2)
Density:	9.28 lb/gal
% Volatile by Volume:	63.3%
Flash point:	NA

DTM Acrylic Gloss Black (B66B11) (Water Reducible, Sherwin-Williams Co.)

Ingredients:

2-(2-Methoxyethoxy)-Ethanol:	5% (CAS# 111-77-3)
Carbon Black:	1% (CAS# 1333-86-4)
Percent Water:	56.5%
Density:	8.56 lb/gal
VOC (total):	0.69 lb/gal
VOC (less water):	1.65 lb/gal
Flash point:	NA

Alkyd Enamel (Sherwin-Williams Co.)

Ingredients:

Mineral Spirits:	44% (CAS# 64742-88-7)
Calcium Carbonate:	8% (CAS# 471-34-1)
Carbon Black:	2% (CAS# 1333-86-4)
Density:	8.08 lb/gal
Specific Gravity:	0.97
% Volatile by Volume:	57%
Flash Point:	101°F
LEL:	1.0
UEL:	6.0

Source: Material Safety Data Sheets (MSDS) (attached).

MATERIAL SAFETY DATA SHEET

B66B11
13 00

DATE OF PREPARATION
Dec 18, 2010

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

B66B11

PRODUCT NAME

DTM ACRYLIC Gloss Acrylic Coating, Black

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.
Cleveland, OH 44115

Telephone Numbers and Websites

Product Information	www.sherwin-williams.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300

*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
5	111-77-3	2-(2-Methoxyethoxy)-ethanol ACGIH TLV OSHA PEL	Not Available Not Available	1 mm
1	1333-86-4	Carbon Black ACGIH TLV OSHA PEL	3.5 MG/M3 3.5 MG/M3	

SECTION 3 — HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE

EYES: Irritation.
SKIN: Prolonged or repeated exposure may cause irritation.
INHALATION: Irritation of the upper respiratory system.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

HMS Codes

Health	2*
Flammability	0
Reactivity	0

SECTION 4 — FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
SKIN: Wash affected area thoroughly with soap and water.
Remove contaminated clothing and launder before re-use.
INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
Not Applicable	N.A.	N.A.	Not Applicable

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Alcohol Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION 6 — ACCIDENTAL RELEASE MEASURES**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

SECTION 7 — HANDLING AND STORAGE**STORAGE CATEGORY**

Not Applicable

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally.

Keep out of the reach of children.

SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION**PRECAUTIONS TO BE TAKEN IN USE**

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m³ (total dust), 3 mg/m³ (respirable fraction), OSHA PEL 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction).**VENTILATION**

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits.

Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	8.56 lb/gal	1026 g/l
SPECIFIC GRAVITY	1.03	
BOILING POINT	212 - 500 °F	100 - 260 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	66%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
pH	9.0	
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)		
1.65 lb/gal	198 g/l	Less Water and Federally Exempt Solvents
0.69 lb/gal	83 g/l	Emitted VOC

SECTION 10 — STABILITY AND REACTIVITY

STABILITY — Stable
CONDITIONS TO AVOID
 None known.

INCOMPATIBILITY
 None known.

HAZARDOUS DECOMPOSITION PRODUCTS
 By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION
 Will not occur

SECTION 11 — TOXICOLOGICAL INFORMATION**CHRONIC HEALTH HAZARDS**

Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

TOXICOLOGY DATA

CAS No.	Ingredient Name			
111-77-3	2-(2-Methoxyethoxy)-ethanol	LC50 RAT	4HR	Not Available
		LD50 RAT		5500 mg/kg
1333-86-4	Carbon Black	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available

SECTION 12 — ECOLOGICAL INFORMATION**ECOTOXICOLOGICAL INFORMATION**

No data available.

SECTION 13 — DISPOSAL CONSIDERATIONS**WASTE DISPOSAL METHOD**

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

SECTION 14 — TRANSPORT INFORMATION**US Ground (DOT)**

Not Regulated for Transportation.

Canada (TDG)

Not Regulated for Transportation.

IMO

Not Regulated for Transportation.

SECTION 15 — REGULATORY INFORMATION**SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION**

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
	Glycol Ethers	5	

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

MATERIAL SAFETY DATA SHEET

B54B11
32 00

DATE OF PREPARATION
Nov 30, 2010

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

B54B11

PRODUCT NAME

Industrial Enamel, Black

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.
Cleveland, OH 44115

Telephone Numbers and Websites

Product Information	www.sherwin-williams.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300

*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
44	64742-88-7	Mineral Spirits		
		ACGIH TLV	100 PPM	2 mm
		OSHA PEL	100 PPM	
0.2	100-41-4	Ethylbenzene		
		ACGIH TLV	100 PPM	7.1 mm
		ACGIH TLV	125 PPM STEL	
		OSHA PEL	100 PPM	
		OSHA PEL	125 PPM STEL	
8	471-34-1	Calcium Carbonate		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	15 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	
2	1333-86-4	Carbon Black		
		ACGIH TLV	3.5 MG/M3	
		OSHA PEL	3.5 MG/M3	

SECTION 3 — HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE

EYES: Irritation.
SKIN: Prolonged or repeated exposure may cause irritation.
INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.
Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:

- the liver
- the urinary system

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

HMIS Codes

Health	2*
Flammability	2
Reactivity	0

SECTION 4 — FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
101 °F PMCC	1.0	6.0	Combustible, Flash above 99 and below 200 °F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION 6 — ACCIDENTAL RELEASE MEASURES**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

SECTION 7 — HANDLING AND STORAGE**STORAGE CATEGORY**

DOL Storage Class II

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally.

Keep out of the reach of children.

SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION**PRECAUTIONS TO BE TAKEN IN USE**

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m³ (total dust), 3 mg/m³ (respirable fraction), OSHA PEL 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits.

Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	8.08 lb/gal	968 g/l
SPECIFIC GRAVITY	0.97	
BOILING POINT	300 - 395 °F	148 - 201 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	57%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)		
	3.66 lb/gal	439 g/l
	3.66 lb/gal	439 g/l
		Less Water and Federally Exempt Solvents
		Emitted VOC

SECTION 10 — STABILITY AND REACTIVITY**STABILITY — Stable****CONDITIONS TO AVOID**

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

SECTION 11 — TOXICOLOGICAL INFORMATION**CHRONIC HEALTH HAZARDS**

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

TOXICOLOGY DATA

CAS No.	Ingredient Name	LC50 RAT	4HR	Not Available
64742-88-7	Mineral Spirits	LD50 RAT		Not Available
				Not Available
100-41-4	Ethylbenzene	LC50 RAT	4HR	Not Available
		LD50 RAT		3500 mg/kg
471-34-1	Calcium Carbonate	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
1333-86-4	Carbon Black	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available

SECTION 12 — ECOLOGICAL INFORMATION**ECOTOXICOLOGICAL INFORMATION**

No data available.

SECTION 13 — DISPOSAL CONSIDERATIONS**WASTE DISPOSAL METHOD**

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

SECTION 14 — TRANSPORT INFORMATION**US Ground (DOT)**

May be Classed as a Combustible Liquid for U.S. Ground.
UN1263, PAINT, 3, PG III, (ERG#128)

DOT (Dept of Transportation) Hazardous Substances & Reportable Quantities

Xylenes (isomers and mixture) 100 lb RQ

Bulk Containers may be Shipped as (check reportable quantities):

UN1263, PAINT, COMBUSTIBLE LIQUID, PG III, (ERG#128)

Canada (TDG)

May be Classed as a Combustible Liquid for Canadian Ground.
UN1263, PAINT, CLASS 3, PG III, (ERG#128)

IMO

UN1263, PAINT, CLASS 3, PG III, (38 C c.c.), EmS F-E, S-E, ADR (D/E)

SECTION 15 — REGULATORY INFORMATION**SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION**

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
100-41-4	Ethylbenzene	0.1	

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

Paint

STX# 53101664

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: MCM - #1210QD QD EN Black GPD HMIS CODES: H F R P
 PRODUCT CODE: MMQDBLK 0 0 0

*Enamel***SECTION I - MANUFACTURER IDENTIFICATION**

MANUFACTURER'S NAME: MCM PAINTS
 ADDRESS: 321 East Sugarland Highway, Clewiston, FL, 33440
 EMERGENCY PHONE: 941-983-9498 INFORMATION PHONE: 941-983-9498
 DATE REVISED : 06-22-95 NAME OF PREPARER : Harvey Leibowitz
 REASON REVISED : Original

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS	CAS NUMBER	OCCUPATIONAL EXPOSURE LIMITS			VAPOR PRESSURE in Hg @ 70°F	WEIGHT PERCENT
		OSHA PEL	ACGIH TLV	NIOSH PEL		
STODDARD SOLVENT/MINERAL SPIRITS	8052-41-3	100PPH	100PPH	N/A	3.4 68F	20
ALKYL QUATERNARY AMMONIUM MONTMORILLONITE/CLAY	68953-58-2	1.25MG/M3	1.25MG/M3		N/A	< 5.0%
XNAP NAPTHA	64742-48-9	100PPH	100PPH		2.0 68F	10

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K.D.I.**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

BOILING POINT: 300-407 DEG. F. SPECIFIC GRAVITY (H2O=1): 0.9
 VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER
 COATING V.O.C. : 3.97 LB/GL (475 GR/LT)
 MATERIAL V.O.C.: 3.95 LB/GL (473 GR/LT)
 SOLUBILITY IN WATER: INSOLUBLE
 APPEARANCE AND ODOR: COLORED PIGMENTED LIQUID WITH SOLVENT ODOR.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 105 DEG F METHOD USED: PMCC
 FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 0.7% UPPER: 6.0%

EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL, WATER FOG

SPECIAL FIREFIGHTING PROCEDURES

WATER MAY BE INEFFECTIVE IN EXTINGUISHING FIRE. USE SELF CONTAINED BREATHING APPARATUS.
 DO NOT USE WATER STREAM ON BURNING LIQUID. IF WATER IS USED TO COOL CONTAINERS NEAR FIRE, FOG NOZZLES ARE PREFERRED.

USUAL FIRE AND EXPLOSION HAZARDS

CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT OR FIRE.

DECOMPOSITION OF BURNING MATERIAL MAY CAUSE TOXIC GASES TO FORM WHICH MAY INCLUDE CARBON DIOXIDE AND CARBON MONOXIDE.

OBLK

MATERIAL SAFETY DATA SHEET

PAGE 2 OF 3

SECTION V - REACTIVITY DATA

**STABILITY: STABLE
CONDITIONS TO AVOID**

ELEVATED TEMPERATURES AND BUILD UP OF VAPORS. HEAT, SPARKS AND OPEN FLAME. AVOID FREE FALL.

INCOMPATIBILITY (MATERIALS TO AVOID)

AVOID STRONG OXIDIZING AGENTS, STRONG ACIDS OR BASES.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

BURNING OR DECOMPOSING MATERIAL MAY GIVE OFF CARBON DIOXIDE AND OR CARBON MONOXIDE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION VI - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSUREBREATHING DIFFICULTY, LIGHTEADEDNESS, HEADACHE, DIZZINESS, AND NAUSEA. IRRITATION TO THE NOSE, THROAT AND LUNGS.
PROLONGED INHALATION MAY LEAD TO MUCOUS MEMBRANE IRRITATION, CENTRAL NERVOUS SYSTEM DEPRESSION, FAINTING OR DEATH.**SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE**IRRITATION AND WATERING OF EYES.
PROLONGED OR REPEATED CONTACT CAN CAUSE BLURRED VISION AND CORNEAL INJURY.**SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**IRRITATION OF SKIN, REDNESS AND POSSIBLE SWELLING.
PROLONGED OR REPEATED CONTACT CAN CAUSE DERMATITIS, DEFATTING. CAN BE ABSORBED THROUGH SKIN.**INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**HOUSING, DIFFICULTY IN BREATHING, GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING AND DIARRHEA.
NERVOUS SYSTEM DEPRESSION WHICH CAN INCLUDE DROWSINESS, DIZZINESS, LOSS OF COORDINATION AND FATIGUE.**HEALTH HAZARDS (ACUTE AND CHRONIC)**BREATHING DIFFICULTY, HEADACHE, DIZZINESS, NAUSEA, IRRITATION TO THE RESPIRATORY TRACT. CAUSES EYE AND SKIN IRRITATION.
IRRITATION OF THE DIGESTIVE TRACT AND NERVOUS SYSTEM DEPRESSION. ASPIRATION HAZARD. NARCOSIS AT HIGH FUME CONCENTRATION.
PROLONGED AND REPEATED OVEREXPOSURE MAY CAUSE PERMANENT BRAIN AND OR NERVOUS SYSTEM DAMAGE. CAN CAUSE DERMITITIS.
AIRBORNE DUST INHALATION MAY CAUSE LUNG DAMAGE. INTENTIONAL MISUSE THROUGH INHALATION MAY BE HARMFUL OR FATAL.**MUTAGENICITY: NTP? NO IARC MONOGRAPHS? NO OSHA REGULATED? NO**
THIS PRODUCT MAY CONTAIN CRYSTALLINE SILICA, WHICH IS CONSIDERED A HAZARD BY INHALATION, THAT CAN CAUSE SILICOSIS.**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**

INGREDIENTS IN THIS PRODUCT ARE REPORTED TO AGGRAVATE PREEXISTING EYE, SKIN, RESPIRATORY, KIDNEY AND LIVER DISORDERS.

EMERGENCY AND FIRST AID PROCEDURESEYE CONTACT: FLUSH WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES. SEEK IMMEDIATE MEDICAL ATTENTION.
INHALATION: REMOVE TO FRESH AIR. ADMINISTER OXYGEN IF NECESSARY. SEEK IMMEDIATE MEDICAL ATTENTION.
SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER. IF IRRITATION PERSISTS GET MEDICAL ATTENTION.
INGESTION: DO NOT INDUCE VOMITING. DRINK 1 OR 2 GLASSES OF WATER TO DILUTE. OBTAIN MEDICAL ATTENTION IMMEDIATELY.

ODBLK

MATERIAL SAFETY DATA SHEET

PAGE 3 OF 3

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

AVOID CONTACT AND BREATHING OF VAPORS. VENTILATE AREA. REMOVE IGNITION SOURCES. DIKE AND ABSORB WITH ABSORBENT MATERIAL. USE NONSPARKING TOOLS TO RETURN MATERIAL TO CONTAINER. PREVENT MATERIAL FROM ENTERING SEWERS OR OPEN BODIES OF WATER.

WASTE DISPOSAL METHOD

DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
DO NOT INCINERATE CLOSED CONTAINERS.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

DO NOT STORE IN HIGH A TEMPERATURE AREA.
DO NOT STORE NEAR FIRE OR OPEN FLAME.
DO NOT THROW OR DROP CONTAINERS. KEEP CONTAINER TIGHTLY CLOSED AND IN UPRIGHT POSITION.

OTHER PRECAUTIONS

DO NOT TAKE INTERNALLY. USE WITH ADEQUATE VENTILATION. CLOSE CONTAINER AFTER EACH USE.
AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. AVOID BREATHING OF VAPORS, SPRAY MIST OR SANDING DUST.
GROUND AND BOND CONTAINERS WHEN TRANSFERRING MATERIAL. AVOID FREEFALL OF MATERIAL WHEN TRANSFERRING MATERIAL.
DO NOT CUT OR WELD EMPTY DRUM.
KEEP OUT OF REACH OF CHILDREN. WASH HANDS THOROUGHLY AFTER HANDLING, ESPECIALLY BEFORE EATING OR SMOKING.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION

IF SPRAYING, USE NIOSH APPROVED RESPIRATOR SPECIFIED FOR PROTECTION AGAINST PAINT SPRAY MIST, SANDING DUST AND ORGANIC VAPORS, USE TC-21C OR EQUIVALENT DUST MASK.

VENTILATION

IF IN CONFINED AREAS USE MECHANICAL VENTILATION TO KEEP VAPOR CONCENTRATION UNDER PERMISSIBLE T.L.V. AND L.E.L.
IF STILL INADEQUATE, USE A TC-23C OR EQUIVALENT MASK. IF VENTING DISCHARGE EXHAUST AWAY FROM IGNITION SOURCES.

PROTECTIVE GLOVES

SOLEVENT IMPERMEABLE RUBBER GLOVES ARE REQUIRED DURING REPEATED CONTACT.

EYE PROTECTION

SPLASH RESISTANT AND SPRAY MIST PROTECTION REQUIRED. USE SPLASH GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

CLOTHING ADEQUATE TO PROTECT SKIN. REMOVE AND WASH BEFORE REUSE.
EYE WASH, SAFETY SHOWER.

WORK/HYGIENIC PRACTICES

NORMAL INDUSTRIAL HYGIENIC PRACTICES SHOULD BE FOLLOWED. WASH HANDS BEFORE EATING, SMOKING OR USING THE WASHROOM.

SECTION IX - DISCLAIMER

DISCLAIMER

THIS INFORMATION IS BASED ON TECHNICAL DATA BELIEVED TO BE ACCURATE AND RELIABLE, BUT IS FURNISHED WITHOUT ANY EXPRESSED IMPLIED WARRANTIES.

Paint

STK# 53101540

MATERIAL SAFETY DATA SHEET

#1310AM Gloss Black Printed: 05/05/04 Revised: 05/03/04 Page 1

Manufacturer: MCM PAINTS 321 E SUGARLAND HWY CLEWISTON, FL 33440 Phone: 863-983-9496	Hazard Rating:	Health	1
	Least --> Greatest	Flammability	0
	0 --> 4	Reactivity	0
		Personal Protection	H

EMERGENCY TELEPHONE:

SECTION I: PRODUCT IDENTIFICATION

Product Code: #1310AM Gloss Black
Chemical Name/Class: LATEX PAINT

DTM

CAS Number:

SECTION IIA: HAZARDOUS INGREDIENTS

Ingredient	CAS Number	(To Nearest 10%)		Vapor	
		% by Wt.	% by Vol.	LEL Press.	TLV
1. AMMONIUM HYDROXIDE	1336-21-6	.10	.10	16.0	420.00
2. DB SOLVENT	112-34-5	2.50	2.70	NA	.01
3. BUTYL CELLOSOLVE	000111-76-2	3.50	4.00	1.1	.60

NA = Not Applicable; NE = Not Established

SECTION IIB: OCCUPATIONAL EXPOSURE LIMITS

Inge. #	-----OSHA PEL's-----		-----ACGIH TLV's-----			
	OSHA ppm	OSHA mg/m3	TWA ppm	TWA ng/m3	STEL ppm	STEL mg/m3
1.	25	18.00	25	18.00	35	27.00
2.	NE	NE	NE	NE	NE	NE
3.	NA	NA	25	NA	NA	NA

OSHA: Ne
ACGIH: Ne

NA = Not Applicable; NE = Not Established

SECTION III: PHYSICAL DATA

Boiling Range (degrees F): 212 - 446.00 Pounds per Gallon: 8.64
 Vapor Density: HEAVIER THAN AIR Evaporation Rate: FASTER THAN ETHER
 Solubility in Water: 100

Volatiles (%)	by Weight		by Volume	
	Total	Exempt VOC	Total	Exempt VOC
	60.5	54.4	63.3	56.5
	6.1	6.1	6.8	6.8

VOC wt/gal: 1.21 lbs non-exempt solvent per adjusted gallon
Appearance: BLACK

MCM PAINTS
#1310AM Gloss Black

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MATERIAL SAFETY DATA SHEET

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SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flammability Classification:

OSHA: NON FLAMMABLE DOT: NONFLAMMABLE

Flash Point: NA (Method:)

Extinguishing Media: CO2/FOAM

Unusual Fire and Explosion Hazards

COOL CONTAINERS WITH WATER STREAM IN THE EVENT OF FIRE

Special Firefighting Procedures:

DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL PROTECTIVE GEAR

SECTION V: HEALTH HAZARD DATA

Effects of Overexposure

EYES: LIQUID OR VAPOR CONTACT CAN CAUSE PAINFUL EYE IRRITATION
SKIN: BRIEF CONTACT CAN BE MILDLY IRRITATING. AVOID EXCESSIVE CONTACT
INHALATION: VAPORS CAN BE IRRITATING TO NOSE AND THROAT. SYMPTOMS OF
OVEREXPOSURE MAY INCLUDE HEADACHE, NAUSEA, VOMITING, DROWSINESS.
INGESTION: SLIGHTLY TOXIC

Medical Conditions Prone to Aggravation by Exposure:

HEART CONDITIONS, ASTHMA

Primary Routes of Entry into the Body, and Effects:

INHALATION, DERMAL CONTACT, EYE CONTACT, INGESTION.

EMERGENCY FIRST-AID PROCEDURES

EYES: FLUSH WITH WATER FOR 15 MIN. REFER TO PHYSICIAN

SKIN: WASH WITH SOAP AND WATER, REMOVE CONTAMINATED CLOTHING

INHALATION: REMOVE TO FRESH AIR. PROVIDE OXYGEN IF BREATHING IS DIFFICULT

INGESTION: DO NOT GIVE LIQUIDS IF UNCONSCIOUS. OTHERWISE GIVE NO MORE THAN
2 GLASSES OF WATER AND INDUCE VOMITING.

SECTION VI: REACTIVITY DATA

Stability: STABLE Hazardous Polymerization WILL NOT OCCUR.

Hazardous Decomposition Products:

CARBON MONOXIDE, AND UNIDENTIFIED ORGANIC COMPOUNDS

Conditions to Avoid:

HEAT SPARKS AND OPEN FLAMES

Incompatibilities (Materials to Avoid)

OXIDIZING MATERIALS

SECTION VII: SPILL OR LEAK PROCEDURES; WASTE DISPOSAL

Steps to be taken if Material is Leaked or Spilled:

DIKE AND CONTAIN SOAK UP RESIDUE WITH ABSORBENT MATERIAL

Waste Disposal Methods:

DISPOSE IN RECREATED APPROVED FACILITY

MCM PAINTS

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SECTION VIII: SAFE HANDLING AND USE INFORMATION

Respiratory Protection

YES

Ventilation

YES

Protective Gloves

YES

Eye Protection

YES

Other Protective Equipment

APRON

Hygienic Practices

WASH AFTER HANDLING

SECTION IX: SPECIAL PRECAUTIONS

Handling and Storing

STORE IN COOL DRY PLACE PROTECT FROM FREEZING

Other Precautions

END OF MSDS

STK# 53306000

Reducer

MATERIAL SAFETY DATA SHEET

DR634
07:00

DATE OF PREPARATION
Dec 2, 2010

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

DR634

PRODUCT NAME

DIMENSION® Reducer, Medium/Slow

MANUFACTURER'S NAME

WESTERN AUTOMOTIVE FINISHES
101 Prospect Avenue N.W.
Cleveland, OH 44115

Telephone Numbers and Websites

Regulatory Information	(216) 566-2902
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*For Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
0.2	100-41-4	Ethylbenzene ACGIH TLV ACGIH TLV OSHA PEL OSHA PEL	100 PPM 125 PPM STEL 100 PPM 125 PPM STEL	7.1 mm
29	67-64-1	Acetone ACGIH TLV ACGIH TLV OSHA PEL	500 PPM 750 PPM STEL 1000 PPM	180 mm
10	78-93-3	Methyl Ethyl Ketone ACGIH TLV ACGIH TLV OSHA PEL OSHA PEL	200 PPM 300 PPM STEL 200 PPM 300 PPM STEL	70 mm
49	110-43-0	Methyl n-Amyl Ketone ACGIH TLV OSHA PEL	50 PPM 100 PPM	3.855 mm
8	763-69-9	Ethyl 3-Ethoxypropionate ACGIH TLV OSHA PEL	Not Available Not Available	1.11 mm
3	112-07-2	2-Butoxyethyl Acetate ACGIH TLV OSHA PEL	Not Available Not Available	1 mm

SECTION 3 — HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE

EYES: Irritation.
SKIN: Prolonged or repeated exposure may cause irritation.

INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.
Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:
• the liver
• the urinary system
• the hematopoietic (blood-forming) system

HMS Codes

Health	2
Flammability	3
Reactivity	0

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DR634

- the reproductive system

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists. Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

SECTION 4 — FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES**FLASH POINT**

20 °F PMCC

LEL

0.5

UEL

12.8

FLAMMABILITY CLASSIFICATION

RED LABEL -- Extremely Flammable, Flash below 21 °F (-6 °C)

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION 6 — ACCIDENTAL RELEASE MEASURES**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

SECTION 7 — HANDLING AND STORAGE**STORAGE CATEGORY**

DOL Storage Class IB

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Contents are EXTREMELY FLAMMABLE. Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION**PRECAUTIONS TO BE TAKEN IN USE**

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits.

Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

DR634

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	6.82 lb/gal	816 g/l
SPECIFIC GRAVITY	0.82	
BOILING POINT	132 - 384 °F	55 - 195 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	99%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)		
	6.91 lb/gal	828 g/l
	4.83 lb/gal	579 g/l
		Emitted VOC
		Less Water and Federally Exempt Solvents

SECTION 10 — STABILITY AND REACTIVITY

STABILITY — Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

SECTION 11 — TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS

Methyl Ethyl Ketone may increase the nervous system effects of other solvents.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

TOXICOLOGY DATA

GAS No.	Ingredient Name	LC50 RAT	4HR	LD50 RAT
100-41-4	Ethylbenzene			Not Available 3500 mg/kg
67-64-1	Acetone			Not Available 5800 mg/kg
78-93-3	Methyl Ethyl Ketone			Not Available 2740 mg/kg
110-43-0	Methyl n-Amyl Ketone			Not Available 1670 mg/kg
763-69-9	Ethyl 3-Ethoxypropionate			Not Available 5000 mg/kg
112-07-2	2-Butoxyethyl Acetate			Not Available 2400 mg/kg

SECTION 12 — ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

DR634

SECTION 13 — DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers. Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

SECTION 14 — TRANSPORT INFORMATION

US Ground (DOT)

1 Gallon and Less may be Classed as CONSUMER COMMODITY, ORM-D.

Larger Containers are Regulated as:

UN1263, PAINT RELATED MATERIAL, 3, PG II, (ERG#128)

DOT (Dept of Transportation) Hazardous Substances & Reportable Quantities:

Acetone 5000 lb RQ

Xylenes (isomers and mixture) 100 lb RQ

Bulk Containers may be Shipped as (check reportable quantities):

UN1263, PAINT RELATED MATERIAL, 3, PG II, (ERG#128)

Canada (TDG)

UN1263, PAINT RELATED MATERIAL, CLASS 3, PG II, (ERG#128)

IMO:

UN1263, PAINT RELATED MATERIAL, CLASS 3, PG II, (-7 C.c.c.), EmS F-E, S-E, ADR (D/E)

SECTION 15 — REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
100-41-4	Ethylbenzene	0.1	
	Glycol Ethers	3	

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

EMISSIONS UNIT INFORMATION

Section [8]

Facility-wide Unregulated

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [8]

Facility-wide Unregulated

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

- This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
This emission unit addressed facility-wide unregulated emissions sources not addressed in other emission units. See Attachment GSH-EU8-AV2 for a list of the unregulated emission sources.

3. Emissions Unit Identification Number:

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20
--------------------------------	--------------------------------	--------------------------	--

8. Federal Program Applicability: (Check all that apply)

- Acid Rain Unit
- CAIR Unit

9. Package Unit:

Manufacturer:

Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

The emission unit contains other unregulated sources at this facility that contribute to the facility-wide fugitive emissions not addressed in any other emission unit.

EMISSIONS UNIT INFORMATION

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Facility-wide Unregulated

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

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Facility-wide Unregulated

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram:		2. Emission Point Type Code: 4			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:					
5. Discharge Type Code: F		6. Stack Height: feet		7. Exit Diameter: feet	
8. Exit Temperature: °F		9. Actual Volumetric Flow Rate: acfm		10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm			12. Nonstack Emission Point Height: feet		
13. Emission Point UTM Coordinates... Zone: East (km): North (km):			14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)		
15. Emission Point Comment:					

EMISSIONS UNIT INFORMATION

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Facility-wide Unregulated

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION

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Facility-wide Unregulated

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
Volatile Organic Compounds (VOC)			NS
Particulate Matter-Total (PM)			NS
Particulate Matter (PM10)			NS
Particulate Matter (PM2.5)			NS

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions of

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions of

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ___ of ___

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

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Facility-wide Unregulated

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Rules 62-296.320(4)(b)1. & 4., F.A.C.	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [8]

Facility-wide Unregulated

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor of

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor of

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

Section [8]

Facility-wide Unregulated

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT GSH-EU8-AV2

LIST OF UNREGULATED EMISSION SOURCES

**ATTACHMENT GSH-EU8-AV2
LIST OF UNREGULATED EMISSION SOURCES**

Emission Unit**Unit Type**

Fugitive emissions from mill mud conveying and loading system (2 silos and truck loadout)

Material Handling of bulk solids

Fugitive emissions from bagasse piles

Bagasse storage, transfer, and addition

Fugitive emissions from ash piles

Ash storage

H₂S Degasifier for well water

Degasifier vents

CAM PLAN



CAM PLAN

COMPLIANCE ASSURANCE MONITORING PLAN

Sugar Cane Growers Cooperative of Florida

Prepared For: Sugar Cane Growers Cooperative of Florida
1500 West Sugar House Road
Belle Glade, Florida 33430-0666

Submitted By: Golder Associates Inc.
6026 NW 1st Place
Gainesville, FL 32607 USA

January 2011

103-87692

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Appendices

Appendix A Historic PM Compliance Test Data for Boiler Nos. 1-5, and 8

1.0 EMISSION UNITS REQUIRING CAM PLANS

1.1 CAM Rule Applicability Definition

On August 22, 2006, the Florida Department of Environmental Protection (FDEP) issued a Title V Air Operation Permit (Permit No. 0990026-012-AV) to Sugar Cane Growers Cooperative of Florida (SCGCF) for operation of its Belle Glade, Florida, sugar mill boilers. This permit expires on August 23, 2011.

As part of the Title V renewal application, a Compliance Assurance Monitoring (CAM) Plan must be submitted as required by regulations adopted in Title 40, Part 64 of the Code of Federal Regulations (40 CFR 64). This regulation has been incorporated by reference in Rule 62-204.800(12) of the Florida Administrative Code (F.A.C.), and implemented in Rule 62-213.440(4)(b)(3), F.A.C.

CAM plans are required for all Title V permitted emissions units using control devices to meet federally enforceable emission limits or standards, and that have pre-control emissions greater than "major" source thresholds. The term "major" is defined as in the Title V regulations (40 CFR 70.2), but applied on a source-by-source basis. For most non-hazardous pollutants, the major source threshold is 100 tons per year (TPY). For hazardous air pollutants (HAPs), the threshold is 10 TPY for an individual HAP, and 25 TPY for total HAPs combined.

The CAM rules contain specific exemptions from applicability of CAM. Specifically exempted from CAM are emission limitations or standards promulgated under the following: Stratospheric Ozone Regulations contained in 40 CFR 82; the Acid Rain Program contained in 40 CFR 72; or those that are part of an emissions cap included in the Title V Permit. Also exempt are emission limitations or standards proposed after November 15, 1990, under the following: New Source Performance Standards (NSPS) contained in 40 CFR 60; and National Emission Standards for Hazardous Air Pollutants (NESHAPs) promulgated in 40 CFR 63. These limitations and standards have monitoring requirements equivalent to CAM included as part of the standard.

Inherent process equipment (IPE), or equipment that may have the effect of controlling emissions but is installed for the primary purpose of product recovery or raw material recovery, is also exempt from CAM (40 CFR 64.1). In addition, CAM does not apply to any emission limit or standard for which the Title V permit specifies a continuous compliance determination method [40 CFR 64.2(b)(1)(vi)], provided that the method does not include an assumed control device emission reduction factor that could be affected by the actual operation and maintenance of the control device.

1.2 Emissions Units Requiring CAM Plans

A review of emissions units at the SCGCF sugar mill was conducted to determine the applicability of the CAM rule. This evaluation was conducted for each emissions unit and regulated pollutant. First, the existence of a "control device" as defined by the CAM Rule was determined on a source-by-source basis

for each pollutant. Those emissions units without control devices were eliminated from further consideration.

The remaining emissions units were then evaluated on a pollutant-by-pollutant basis to determine if a control device was used to meet a federally enforceable emission limit or standard. Each pollutant without a federally enforceable emission limit or standard, emitted from a given emissions unit, was eliminated from further consideration.

Uncontrolled annual emissions were then calculated for each remaining source-pollutant combination. If uncontrolled emissions for a pollutant emitted from a given emissions unit were below major source thresholds, as defined by the CAM rule, that pollutant was not further considered.

Specific exemptions to the applicability of the CAM rule were also considered in this evaluation.

A summary of the results of this evaluation process is presented in Table 1. Each pollutant-specific emissions unit at the SCGCF sugar mill, and its applicability to CAM, is described in the following sections.

1.2.1 Boiler No. 1 (EU 001)

Boiler No. 1 has a water-cooled, pin-hole grate, and is fired by bagasse, residue, and fuel oil. Boiler No. 1 has a maximum production capacity of 139,700 pounds per hour (lb/hr) steam (24-hour average). This corresponds to a maximum 24-hour heat input rate of 226.7 million British thermal units per hour (MMBtu/hr) while firing bagasse. The maximum heat input rate from residue is 234.7 MMBtu/hr, and the maximum heat input rate from No. 6 fuel oil is 229.7 MMBtu/hr. On-specification, used oil can be fired at a rate not to exceed 6 MMBtu/hr (annual average).

Boiler No. 1 has federally enforceable emission limits for particulate matter (PM), nitrogen oxides (NO_x), sulfur dioxide (SO₂), and volatile organic compounds (VOC). Boiler No. 1 utilizes an impingement wet scrubber to control PM emissions. As shown in Table 1, uncontrolled PM emissions are greater than 100 TPY. Since a federally enforceable emission limit exists for PM, a control device is used to comply with the PM emission limit, and since uncontrolled PM emissions are greater than 100 TPY, a CAM plan is required for PM for Boiler No. 1. Since there is no control device controlling NO_x, SO₂, or VOC emissions from Boiler No. 1, CAM plans for NO_x, SO₂, and VOC are not required.

1.2.2 Boiler No. 2 (EU 002)

Prior to the 2005-2006 crop season, Boiler No. 2 had a traveling grate. The boiler now has been converted to a water-cooled, pin-hole grate and is fired by bagasse, residue, and fuel oil. Boiler No. 2 has a maximum production capacity of 138,154 lb/hr steam (24-hour average). This corresponds to a maximum 24-hour heat input rate of 263.8 MMBtu/hr while firing bagasse. The maximum heat input rate

from residue is 232.2 MMBtu/hr, and the maximum heat input rate from No. 6 fuel oil is 229.7 MMBtu/hr. On-specification used oil can be fired at a rate not to exceed 6 MMBtu/hr (annual average).

Boiler No. 2 has federally enforceable emission limits for PM, NO_x, SO₂, and VOC. Boiler No. 2 utilizes one impingement wet scrubber to control PM emissions. As shown in Table 1, uncontrolled PM emissions are greater than 100 TPY. Since a federally enforceable emission limit exists for PM, a control device is used to comply with the PM emission limit, and since uncontrolled PM emissions are greater than 100 TPY, a CAM plan is required for PM for Boiler No. 2. Since there is no control device controlling NO_x, SO₂, or VOC emissions from Boiler No. 2, CAM plans for NO_x, SO₂, and VOC are not required.

1.2.3 Boiler No. 3 (EU 003)

Boiler No. 3 has a water-cooled, pin-hole grate, and is fired by bagasse, residue, and fuel oil. Boiler No. 3 has a maximum production capacity of 110,000 lb/hr steam (8-hour block average). This corresponds to a maximum heat input rate of 210 MMBtu/hr while firing bagasse. The maximum heat input rate from residue is 184.8 MMBtu/hr, and the maximum heat input rate from No. 6 fuel oil is 157.2 MMBtu/hr, both based on a 24-hour block average. On-specification used oil can also be burned in the boiler.

Boiler No. 3 has federally enforceable emission limits for PM, NO_x, SO₂, and VOC. Boiler No. 3 utilizes one impingement wet scrubber to control PM emissions. As shown in Table 1, uncontrolled PM emissions are greater than 100 TPY. Since a federally enforceable emission limit exists for PM, a control device is used to comply with the PM emission limit, and since uncontrolled PM emissions are greater than 100 TPY, a CAM plan is required for PM for Boiler No. 3. Since there is no control device controlling NO_x, SO₂, or VOC emissions from Boiler No. 3, CAM plans for NO_x, SO₂, and VOC are not required.

1.2.4 Boiler No. 4 (EU 004)

Boiler No. 4 has a traveling grate and is fired by bagasse, residue, and fuel oil. Boiler No. 4 has a maximum production capacity of 300,000 lb/hr steam (24-hour average). This corresponds to a maximum heat input rate of 572.7 MMBtu/hr while firing bagasse. The maximum heat input rate from residue is 504 MMBtu/hr, and the maximum heat input rate from No. 6 fuel oil is 392.9 MMBtu/hr. On-specification used oil can be fired at a rate not to exceed 6 MMBtu/hr (annual average).

Boiler No. 4 has federally enforceable emission limits for PM, NO_x, SO₂, and VOC. Boiler No. 4 utilizes two impingement wet scrubbers operating in parallel to control PM emissions. As shown in Table 1, uncontrolled PM emissions are greater than 100 TPY. Since a federally enforceable emission limit exists for PM, a control device is used to comply with the PM emission limit, and since uncontrolled PM emissions are greater than 100 TPY, a CAM plan is required for PM for Boiler No. 4. Since there is no control device controlling NO_x, SO₂, or VOC emissions from Boiler No. 4, CAM plans for NO_x, SO₂, and VOC are not required.

1.2.5 Boiler No. 5 (EU 005)

Boiler No. 5 has a traveling grate and is fired by bagasse, residue, and fuel oil. Boiler No. 5 has a maximum production capacity of 230,000 lb/hr steam (24-hour average). This corresponds to a maximum heat input rate of 439.1 MMBtu/hr while firing bagasse. The maximum heat input rate from residue is 386.4 MMBtu/hr, and the maximum heat input rate from No. 6 fuel oil is 301.9 MMBtu/hr. On-specification used oil can be fired at a rate not to exceed 6 MMBtu/hr (annual average).

Boiler No. 5 has federally enforceable emission limits for PM, NO_x, SO₂, and VOC. Boiler No. 5 utilizes two impingement wet scrubbers operating in parallel to control PM emissions. As shown in Table 1, uncontrolled PM emissions are greater than 100 TPY. Since a federally enforceable emission limit exists for PM, a control device is used to comply with the PM emission limit, and since uncontrolled PM emissions are greater than 100 TPY, a CAM plan is required for PM for Boiler No. 5. Since there is no control device controlling NO_x, SO₂, or VOC emissions from Boiler No. 5, CAM plans for NO_x, SO₂, and VOC are not required.

1.2.6 Boiler No. 8 (EU 006)

Boiler No. 8 has a traveling grate and is fired by bagasse, residue, and fuel oil. Boiler No. 8 has a maximum production capacity of 264,000 lb/hr steam (24-hour average). This corresponds to a maximum heat input rate of 504 MMBtu/hr while firing bagasse. The maximum heat input rate from residue is 443.5 MMBtu/hr, and the maximum heat input rate from fuel oil is 250 MMBtu/hr. On-specification used oil can be fired at a rate not to exceed 6 MMBtu/hr (annual average).

Boiler No. 8 has federally enforceable emission limits for PM, NO_x, SO₂, carbon monoxide (CO), and VOC. Boiler No. 8 utilizes two impingement wet scrubbers operating in parallel to control PM emissions. As shown in Table 1, uncontrolled PM emissions are greater than 100 TPY. Since a federally enforceable emission limit exists for PM, a control device is used to comply with the PM emission limit, and since uncontrolled PM emissions are greater than 100 TPY, a CAM plan is required for PM for Boiler No. 8. Since there is no control device controlling NO_x, SO₂, CO, or VOC emissions from Boiler No. 8, CAM plans for NO_x, SO₂, CO, and VOC are not required.

1.2.7 Spray Booth (EU 007)

The Spray Booth is used to apply petroleum based protective coatings and paint to sugar cane trailers and to sugar cane wagons. The Spray Booth is permitted to use the following three petroleum based materials: Xylol, Bunker C, Zophar; and the following two water-based coatings: Acrylic Gloss and Alkyd Enamel. The operating rates for the materials are as follows: Xylol – 50 lb/hr or 24 TPY, Bunker C – 50 lb/hr or 24 TPY, Zophar – 125 lb/hr or 60 TPY, Acrylic Gloss - 259.1 lb/hr or 124.4 TPY, and Alkyd Enamel – 87.7 lb/hr or 42.1 TPY. These maximum operating rates were calculated as if only that material was being used while the source emits at its maximum allowable VOC emissions of 50 lb/hr or 24 TPY.

The hours of operation of the Spray Booth must not exceed 10 hours per day, 5 days per week, and 32 weeks per year.

The Spray Booth has a federally enforceable emission limit for VOCs, however, since there is no control device controlling VOC emissions, a CAM plan is not required for VOC emissions from the Spray Booth.

2.0 PARTICULATE MATTER EMISSIONS FROM BOILER NO. 1

2.1 Emissions Unit Identification

Boiler No. 1—EU 001

2.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements

Boiler No. 1 has a PM emission limit of 0.25 pounds per British thermal units (lb/MMBtu) for carbonaceous fuel, plus 0.10 lb/MMBtu for No. 6 fuel oil (Permit No. 0990026-012-AV). The equivalent potential emissions are 66.7 lb/hr (24-hr avg.) and 243.2 TPY for carbonaceous fuel and 22.97 lb/hr and 83.8 TPY for No. 6 fuel oil. The current visible emissions (VE) limit is 30-percent opacity, with an exception of up to 40-percent opacity for 2 minutes per hour (Permit No. 0990026-012-AV).

PM and VE compliance testing is required annually on Boiler No. 1. In addition, the total pressure drop across the scrubber and the scrubber water flow rate must be monitored. The monitors must be properly maintained to be functional at all times (Permit No. 0990026-012-AV).

2.3 Control Technology Description

PM emissions from Boiler No. 1 are controlled by one impingement wet scrubber. The scrubber exhausts through a 150-foot stack. The design pressure drop across the scrubber is 2 to 10 inches of water (H₂O). The design water inlet pressure to the scrubber is 40 to 100 pounds per square inch gauge (psig). The design water flow rate to the scrubber is 100 to 300 gallons per minute (gpm). The effectiveness of the wet scrubber is evaluated with an annual stack test and VE measurement. A detailed description of the control equipment is included in the Title V renewal application (Attachment GSH-EU1-I3).

2.4 Monitoring Approach

The monitoring approach is based on monitoring total pressure drop and scrubber water flow rate. The monitoring approach is summarized in the table below:

Boiler No. 1	Indicator No. 1	Indicator No. 2
Indicator	Average pressure drop across the scrubber.	Total water flow rate through the scrubber.
Measurement Approach	Pressure drop is measured with a pressure transducer.	The scrubber water flow rate is measured using an orifice meter.
Indicator Range	An excursion is defined as any individual pressure drop below 2.9 inches H ₂ O. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.	An excursion is defined as any individual water flow rate below 112 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.

Data Representativeness	The monitoring system consists of a pressure transducer, which measures the pressure drop across the scrubber. The minimum accuracy of the device is $\pm 0.075\%$.	The scrubber water orifice meter is located on the scrubber liquid supply line. The minimum accuracy of the device is 0.5%.
Verification of Operational Status	Readout in boiler control room.	Readout in boiler control room.
QA/QC Practices and Criteria	The pressure transducer is maintained in accordance with the manufacturer's recommendations and calibrated annually or more frequently as needed.	The orifice meter is maintained in accordance with the manufacturer's recommendations and calibrated annually or more frequently as needed.
Monitoring Frequency	Pressure drop is monitored continuously.	Scrubber water flow rate is monitored continuously.
Data Collection Procedures	Reading taken once every eight (8) hours.	Reading taken once every eight (8) hours.
Averaging Period	NA	NA

2.5 Justification

Both pressure drop across the scrubber and water flow rate through the scrubber are recognized parameters for controlling PM emissions with a wet scrubber. The pressure drop is a measure of the energy imparted to the gas stream and therefore the efficiency of the scrubbing process. The water flow rate is a measure of sufficient fresh scrubbing liquid being supplied to the scrubber.

SCGCF has sufficient historic test data necessary to establish indicator values for pressure drop and water flow rate to the Boiler No. 1 wet scrubber. The test data correlating the parameters to the PM emission levels is presented in Figures 2-1 and 2-2. Supporting information is contained in Appendix A. The test data includes all PM compliance tests conducted since the 1997-1998 crop season, which reflect the current scrubber configuration.

The proposed parameter minimum values are based on 90 percent of the minimum parameter values from the test runs, using the historic test data. The calculations of the minimum parameter values are provided below:

- Average Pressure Drop: Minimum test run value = 3.2 inches H₂O
 - Minimum parameter value = $3.2 \times 0.9 = 2.9$ inches H₂O
- Total Water Flow Rate: Minimum test run value = 124 gpm
 - Minimum parameter value = $124 \times 0.90 = 112$ gpm

Wet scrubber operating parameter values below these minimum parameter values would be indicative of abnormal operation of the wet scrubber. This methodology is consistent with the establishment of wet

scrubber operating limits under 40 CFR 63, Subpart DDDDD, which are the Industrial Boiler/Process Heater maximum achievable control technology (MACT) standards (now vacated).

The current CAM Plan is based on collecting data once per 8-hour shift, according to specific condition A.13 of Permit No. 0990026-012-AV. An excursion would occur whenever any individual reading is below the minimum parameter value. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.

3.0 PARTICULATE MATTER EMISSIONS FROM BOILER NO. 2

3.1 Emissions Unit Identification

Boiler No. 2—EU 002

3.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements

Boiler No. 2 has a PM emission limit of 0.25 lb/MMBtu for carbonaceous fuel, plus 0.10 lb/MMBtu for No. 6 fuel oil (Permit No. 0990026-012-AV). The equivalent potential emissions are 66.0 lb/hr (24-hour avg.) and 240.6 TPY for carbonaceous fuel and 23.0 lb/hr and 83.8 TPY for No. 6 fuel oil. The current VE limit is 30-percent opacity, with an exception of up to 40-percent opacity for 2 minutes per hour (Permit No. 0990026-012-AV).

PM and VE compliance testing is required annually on Boiler No. 2. In addition, the total pressure drop across the scrubber, water flow rate, and the scrubber water inlet pressure must be monitored. The monitors must be properly maintained to be functional at all times (Permit No. 0990026-012-AV).

3.3 Control Technology Description

PM emissions from Boiler No. 2 are controlled by an impingement wet scrubber. The scrubber exhausts through a 150-foot stack. The design pressure drop across the scrubber is 2 to 10 inches H₂O. The design scrubber water inlet pressure to the scrubber is 40 to 100 psig. The design water flow rate to the scrubber is 100 to 300 gpm. The effectiveness of the wet scrubber is evaluated with an annual stack test and visible emissions measurement. A detailed description of the control equipment is included in the Title V renewal application (Attachment GSH-EU2-I3).

3.4 Monitoring Approach

The monitoring approach is based on monitoring total pressure drop and scrubber water flow rate. The monitoring approach is summarized in the table below:

Boiler No. 2	Indicator No. 1	Indicator No. 2
Indicator	Average pressure drop across the scrubber.	Total water flow rate through the scrubber.
Measurement Approach	Pressure drop is measured with a pressure transducer.	The scrubber water flow rate is measured using an orifice meter.
Indicator Range	An excursion is defined as any individual pressure drop below 3.1 inches H ₂ O. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.	An excursion is defined as any individual water flow rate below 123 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.

Data Representativeness	The monitoring system consists of a pressure transducer, which measures the pressure drop across the scrubber. The minimum accuracy of the device is $\pm 0.075\%$.	The scrubber water orifice meter is located on the scrubber liquid supply line. The minimum accuracy of the device is 0.5%.
Verification of Operational Status	Readout in boiler control room.	Readout in boiler control room.
QA/QC Practices and Criteria	The pressure transducer is maintained in accordance with the manufacturer's recommendations and calibrated annually or more frequently as needed.	The orifice meter is maintained in accordance with the manufacturer's recommendations and is calibrated annually or more frequently as needed.
Monitoring Frequency	Pressure drop is monitored continuously.	Scrubber water flow rate is monitored continuously.
Data Collection Procedures	Reading taken once every eight (8) hours.	Reading taken once every eight (8) hours.
Averaging Period	NA	NA

3.5 Justification

Both pressure drop across the scrubber and water flow rate through the scrubber are recognized parameters for controlling PM emissions with a wet scrubber. The pressure drop is a measure of the energy imparted to the gas stream and, therefore, the efficiency of the scrubbing process. The water flow rate is a measure of sufficient fresh scrubbing liquid being supplied to the scrubber.

Although not required by the current CAM Plan, scrubber inlet water supply pressure is currently monitored for Boiler No. 2 (Permit No. 0990026-012-AV). However, scrubber water flow rate provides a more direct indicator of adequate water supply to the scrubber. Therefore, water delivery pressure is not proposed as a parameter for CAM purposes.

SCGCF has sufficient historic test data necessary to establish indicator values for pressure drop and water flow rate to the Boiler No. 2 wet scrubber. The test data correlating the parameters to the PM emission levels is presented in Figures 3-1 and 3-2. Supporting information is contained in Appendix A. The test data includes all the PM compliance test data since 2004, when the two scrubbers were replaced with one new scrubber. PM compliance test data after 2004 reflect the current scrubber configuration.

The proposed parameter minimum values are based on 90 percent of the minimum parameter values from the 1-hour test runs, using the historic test data. The calculations of the minimum parameter values are provided below:

- Average Pressure Drop: Minimum test run value = 3.4 inches H₂O
 - Minimum parameter value = $3.4 \times 0.9 = 3.1$ inches H₂O

- Total Water Flow Rate: Minimum test run value = 136 gpm
 - Minimum parameter value = $136 \times 0.9 = 123$ gpm

Wet scrubber operating parameter values below these minimum parameter values would be indicative of abnormal operation of the wet scrubber. This methodology is consistent with the establishment of wet scrubber operating limits under 40 CFR 63, Subpart DDDDD, which are the Industrial Boiler/Process Heater MACT standards (now vacated).

The current CAM Plan is based on collecting data once per 8-hour shift, according to specific condition B.13 of permit No. 0990026-012-AV. An excursion would occur whenever any individual reading is below the minimum parameter value. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.

4.0 PARTICULATE MATTER EMISSIONS FROM BOILER NO. 3

4.1 Emissions Unit Identification

Boiler No. 3—EU 003

4.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements

Boiler No. 3 has a PM emission limit of 0.25 lb/MMBtu for carbonaceous fuel, plus 0.10 lb/MMBtu for No. 6 fuel oil (Permit No. 0990026-012-AV). The equivalent potential emissions are 52.5 lb/hr (24-hr avg.) and 191.5 TPY for carbonaceous fuel and 15.7 lb/hr and 57.3 TPY for No. 6 fuel oil. The current VE limit is 30-percent opacity, with an exception of up to 40-percent opacity for 2 minutes per hour (Permit No. 0990026-012-AV).

PM and VE compliance testing is required annually on Boiler No. 3. In addition, the total pressure drop across the scrubber, water flow rate, and the scrubber water inlet pressure must be monitored. The monitors must be properly maintained to be functional at all times (Permit No. 0990026-012-AV).

4.3 Control Technology Description

PM emissions from Boiler No. 3 are controlled by an impingement wet scrubber. The scrubber exhausts through a 180-foot stack. The design pressure drop across the scrubber is 2 to 10 inches H₂O. The design water inlet pressure to the scrubber is 40 to 100 psig. The design water flow rate to the scrubber is 100 to 300 gpm. The effectiveness of the wet scrubber is evaluated with an annual stack test and VE measurement. A detailed description of the control equipment is included in the Title V renewal application (Attachment GSH-EU3-I3).

4.4 Monitoring Approach

The monitoring approach is based on monitoring scrubber pressure drop and scrubber water flow rate. The monitoring approach is summarized in the table below:

Boiler No. 3	Indicator No. 1	Indicator No. 2
Indicator	Average pressure drop across the scrubber.	Total water flow rate through the scrubber.
Measurement Approach	Pressure drop is monitored with a pressure transducer.	The scrubber water flow rate is measured using an orifice meter.
Indicator Range	An excursion is defined as any individual pressure drop below 3.9 inches H ₂ O. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.	An excursion is defined as any individual water flow rate below 114 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.

Data Representativeness	The monitoring system consists of a pressure transducer, which measures the pressure drop across the scrubber. The minimum accuracy of the device is 0.075%.	The scrubber water orifice meter is located on the scrubber liquid supply line. The minimum accuracy of the device is 0.5%.
Verification of Operational Status	Readout in boiler control room.	Readout in boiler control room.
QA/QC Practices and Criteria	The pressure transducer is maintained in accordance with the manufacturer's recommendations and calibrated annually or more frequently as needed.	The orifice meter is maintained in accordance with the manufacturer's recommendations and calibrated annually or more frequently as needed.
Monitoring Frequency	Pressure drop is monitored continuously.	Scrubber water flow rate is monitored continuously.
Data Collection Procedures	Reading taken once every eight (8) hours.	Reading taken once every eight (8) hours.
Averaging Period	NA	NA

4.5 Justification

Both pressure drop across the scrubber and water flow rate to the scrubber are recognized parameters for controlling PM emissions with wet scrubbers. The pressure drop is a measure of the energy imparted to the gas stream and, therefore, the efficiency of the scrubbing process. The water flow rate is a measure of sufficient fresh scrubbing liquid being supplied to the scrubber.

Although not required by the current CAM Plan, scrubber inlet water supply pressure is currently monitored for Boiler No. 3 (Permit No. 0990026-012-AV). However, scrubber water flow rate provides a more direct indicator of adequate water supply to the scrubber. Therefore, water delivery pressure is not proposed as a parameter for CAM purposes.

SCGCF has sufficient historic test data necessary to establish indicator values for pressure drop and water flow rate to the Boiler No. 3 wet scrubber. The test data correlating the parameters to the PM emission levels is presented in Figures 4-1 and 4-2. Supporting information is contained in Appendix A. The test data includes all PM compliance data since 2001, when the boiler was converted from a dumping grate to a water-cooled, pinhole grate boiler.

The proposed parameter minimum values are based on 90 percent of the minimum parameter values from each 1-hour test run, using the historic test data. The calculations of the minimum parameter values are provided below:

- Average Pressure Drop: Minimum test run value = 4.3 inches H₂O
 - Minimum parameter value = 4.3 x 0.9 = 3.9 inches H₂O

- Total Water Flow Rate: Minimum test run value = 126 gpm
 - Minimum parameter value = $126 \times 0.9 = 114$ gpm

Wet scrubber operating parameter values below these minimum parameter values would be indicative of abnormal operation of the wet scrubber. This methodology is consistent with the establishment of wet scrubber operating limits under 40 CFR 63, Subpart DDDDD, which are the Industrial Boiler/Process Heater MACT standards (now vacated).

The current CAM Plan is based on collecting data once per 8-hour shift, according to specific condition C.13 of permit No. 0990026-012-AV. An excursion would occur whenever any individual reading is below the minimum parameter value. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.

5.0 PARTICULATE MATTER EMISSIONS FROM BOILER NO. 4

5.1 Emissions Unit Identification

Boiler No. 4—EU 004

5.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements

Boiler No. 4 has a PM emission limit of 0.20 lb/MMBtu for carbonaceous fuel, plus 0.10 lb/MMBtu for No. 6 fuel oil (Permit No. 0990026-012-AV). The equivalent potential emissions are 114.5 lb/hr and 417.8 TPY for carbonaceous fuel and 39.3 lb/hr and 143.4 TPY for No. 6 fuel oil. The current VE limit is 30-percent opacity, with an exception of up to 40-percent opacity for 2 minutes per hour (Permit No. 0990026-012-AV).

PM and VE compliance testing is required annually on Boiler No. 4. In addition, the total pressure drop across each scrubber, water flow rate to each scrubber, and the scrubber water inlet pressure must be monitored. The monitors must be properly maintained to be functional at all times (Permit No. 0990026-012-AV).

5.3 Control Technology Description

PM emissions from Boiler No. 4 are controlled by two impingement wet scrubbers. The scrubbers exhaust through a 180-foot stack. The design pressure drop across the scrubbers is 2 to 12 inches H₂O. The design water inlet pressure to the scrubbers is 40 to 100 psig. The design water flow rate to the scrubbers is 100 to 400 gpm. The effectiveness of the wet scrubbers is evaluated with an annual stack test and VE measurement. A detailed description of the control equipment is included in the Title V renewal application (Attachment GSH-EU4-I3).

5.4 Monitoring Approach

The monitoring approach is based on monitoring scrubber pressure drop and scrubber water flow rate. The monitoring approach is summarized in the table below:

Boiler No. 4	Indicator No. 1	Indicator No. 2
Indicator	Average pressure drop across each scrubber.	Water flow rate to each scrubber.
Measurement Approach	Pressure drop is monitored with a pressure transducer.	The scrubber water flow rate is measured using an orifice meter.

Indicator Range	An excursion is defined as any individual pressure drop below 4.1 inches H ₂ O for the North Scrubber and any individual pressure drop below 4.3 inches H ₂ O for the South Scrubber. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.	An excursion is defined as any individual total water flow rate below 252 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.
Data Representativeness	The monitoring system consists of a pressure transducer, which measures the pressure drop across each scrubber. The minimum accuracy of the device is 0.075%.	The scrubber water orifice meter is located on the scrubber liquid supply line. The minimum accuracy of the device is 0.5%.
Verification of Operational Status	Readout in boiler control room.	Readout in boiler control room.
QA/QC Practices and Criteria	The pressure transducer is maintained in accordance with the manufacturer's recommendations and calibrated annually or more frequently as needed.	The orifice meter is maintained in accordance with the manufacturer's recommendations and calibrated annually or more frequently as needed.
Monitoring Frequency	Pressure drop is monitored continuously.	Scrubber water flow rate is monitored continuously.
Data Collection Procedures	Reading taken once every eight (8) hours.	Reading taken once every eight (8) hours.
Averaging Period	NA	NA

5.5 Justification

Both pressure drop across the scrubbers and water flow rate to the scrubbers are recognized parameters for controlling PM emissions with wet scrubbers. The pressure drop is a measure of the energy imparted to the gas stream and, therefore, the efficiency of the scrubbing process. The water flow rate is a measure of sufficient fresh scrubbing liquid being supplied to the scrubbers.

Although not required by the current CAM Plan, scrubber inlet water supply pressure is currently monitored for Boiler No. 4 (Permit No. 0990026-012-AV). However, scrubber water flow rate provides a more direct indicator of adequate water supply to the scrubbers. Therefore, water delivery pressure is not proposed as a parameter for CAM purposes.

SCGCF has sufficient historic test data necessary to establish indicator values for pressure drop and water flow rate to the Boiler No. 4 wet scrubbers. The test data correlating the parameters to the PM emission levels is presented in Figures 5-1 through 5-3. Supporting information is contained in Appendix A. The test data includes all PM compliance test data since 1999, when the existing two

scrubbers were installed. However, only data collected since 2007 were used for setting parameter values.

The proposed parameter minimum values are based 90 percent of the minimum parameter values from the 1-hour test runs, using the historic test data. The calculations of the minimum parameter values are provided below:

- Average Pressure Drop (North Scrubber): Minimum test run value = 4.0 inches H₂O
 - Minimum parameter value = $4.6 \times 0.9 = 4.1$ inches H₂O
- Average Pressure Drop (South Scrubber): Minimum test run value = 4.0 inches H₂O
 - Minimum parameter value = $4.8 \times 0.9 = 4.3$ inches H₂O
- Total Water Flow Rate: Minimum test run value = 280 gpm
 - Minimum parameter value = $280 \times 0.9 = 252$ gpm

Wet scrubber operating parameter values below these minimum parameter values would be indicative of abnormal operation of the wet scrubbers. This methodology is consistent with the establishment of wet scrubber operating limits under 40 CFR 63, Subpart DDDDD, which are the Industrial Boiler/Process Heater MACT standards (now vacated).

The current CAM Plan is based on collecting data once per 8-hour shift, according to specific condition D.13 of Permit No. 0990026-012-AV. An excursion would occur whenever any individual reading is below the minimum parameter value. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.

6.0 PARTICULATE MATTER EMISSIONS FROM BOILER NO. 5

6.1 Emissions Unit Identification

Boiler No. 5—EU 005

6.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements

Boiler No. 5 has a PM emission limit of 0.25 lb/MMBtu for carbonaceous fuel, plus 0.10 lb/MMBtu for No. 6 fuel oil (Permit No. 0990026-012-AV). The equivalent potential emissions are 109.8 lb/hr and 400.5 TPY for carbonaceous fuel and 30.2 lb/hr and 110.2 TPY for No. 6 fuel oil. The current VE limit is 30-percent opacity, with an exception of up to 40-percent opacity for 2 minutes per hour (Permit No. 0990026-012-AV).

PM and VE compliance testing is required annually on Boiler No. 5. In addition, the total pressure drop across each scrubber, water flow to each scrubber, and the scrubber water inlet pressure must be monitored. The monitors must be properly maintained to be functional at all times (Permit No. 0990026-012-AV).

6.3 Control Technology Description

PM emissions from Boiler No. 5 are controlled by two impingement wet scrubbers. The design pressure drop across the scrubbers is 2 to 10 inches H₂O. The design water inlet pressure to the scrubbers is 40 to 100 psig. The design total water flow rate to the scrubbers is 100 to 400 gpm. The effectiveness of the wet scrubbers is evaluated with an annual stack test and VE measurement. A detailed description of the control equipment is included in the Title V renewal application (Attachment GSH-EU5-I3).

6.4 Monitoring Approach

The monitoring approach is based on monitoring scrubber pressure drop and scrubber water flow rate. The monitoring approach is summarized in the table below:

Boiler No. 5	Indicator No. 1	Indicator No. 2
Indicator	Average pressure drop across each scrubber.	Water flow rate to each scrubber.
Measurement Approach	Pressure drop is monitored with a pressure transducer.	The scrubber water flow rate is measured using an orifice meter.

Indicator Range	An excursion is defined as any individual pressure drop below 4.5 inches H ₂ O for the North Scrubber and any individual pressure drop below 3.6 inches H ₂ O for the South Scrubber. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.	An excursion is defined as any individual total water flow rate below 243 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.
Data Representativeness	The monitoring system consists of a pressure transducer which measures the pressure drop across each scrubber. The minimum accuracy of the device is 0.075%.	The scrubber water orifice meter is located on the scrubber liquid supply line. The minimum accuracy of the device is 0.5%.
Verification of Operational Status	Readout in boiler control room.	Readout in boiler control room.
QA/QC Practices and Criteria	The pressure transducer is maintained in accordance with the manufacturer's recommendations and calibrated annually or more frequently as needed.	The orifice meter is maintained in accordance with the manufacturer's recommendations and calibrated annually or more frequently as needed.
Monitoring Frequency	Pressure drop is monitored continuously.	Scrubber water flow rate is monitored continuously.
Data Collection Procedures	Reading taken once every eight (8) hours.	Reading taken once every eight (8) hours.
Averaging Period	NA	NA

6.5 Justification

Both pressure drop across the scrubbers and water flow rate to the scrubbers are recognized parameters for controlling PM emissions with wet scrubbers. The pressure drop is a measure of the energy imparted to the gas stream and, therefore, the efficiency of the scrubbing process. The water flow rate is a measure of sufficient fresh scrubbing liquid being supplied to the scrubbers.

Although not required by the current CAM Plan, scrubber inlet water supply pressure is currently monitored for Boiler No. 5 (Permit No. 0990026-012-AV). However, scrubber water flow rate provides a more direct indicator of adequate water supply to the scrubbers. Therefore, water delivery pressure is not proposed as a parameter for CAM purposes.

SCGCF has sufficient historic test data necessary to establish indicator values for pressure drop and water flow rate to the Boiler No. 5 wet scrubbers. The test data correlating the parameters to the PM emission levels is presented in Figures 6-1 through 6-3. Supporting information is contained in Appendix A. The test data includes only the PM compliance test data since 2005-2006, since these data reflect the current design of the scrubbers.

The proposed parameter minimum values are based on 90 percent of the minimum parameter values from the test runs, using the historic test data. The calculations of the minimum parameter values are provided below:

- Average Pressure Drop (North Scrubber): Minimum test run value = 5.0 inches H₂O
 - Minimum parameter value = $5.0 \times 0.9 = 4.5$ inches H₂O
- Average Pressure Drop (South Scrubber): Minimum test run value = 4.0 inches H₂O
 - Minimum parameter value = $4.0 \times 0.9 = 3.6$ inches H₂O
- Total Water Flow Rate: Minimum test run value = 270 gpm
 - Minimum parameter value = $270 \times 0.9 = 243$ gpm

Wet scrubber operating parameter values below these minimum parameter values would be indicative of abnormal operation of the wet scrubbers. This methodology is consistent with the establishment of wet scrubber operating limits under 40 CFR 63, Subpart DDDDD, which are the Industrial Boiler/Process Heater MACT standards (now vacated).

The current CAM Plan is based on collecting data once per 8-hour shift, according to specific condition E.13 of permit No. 0990026-012-AV. An excursion would occur whenever any individual reading is below the minimum parameter value. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.

7.0 PARTICULATE MATTER EMISSIONS FROM BOILER NO. 8

7.1 Emissions Unit Identification

Boiler No. 8—EU 006

7.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements

Boiler No. 8 has a PM emission limit of 0.15 lb/MMBtu for carbonaceous fuel, plus 0.10 lb/MMBtu for No. 6 fuel oil (Permit No. 0990026-012-AV). The equivalent potential emissions are 75.6 lb/hr and 275.8 TPY for carbonaceous fuel and 25.0 lb/hr and 91.2 TPY for No. 6 fuel oil. The current VE limit is 30-percent opacity, with an exception of up to 40-percent opacity for 2 minutes per hour (Permit No. 0990026-012-AV).

PM and VE compliance testing is required annually on Boiler No. 8. In addition, the total pressure drop across each scrubber and each scrubber's water inlet pressure must be monitored and readings shall be logged every 8 hours while the boiler is in operation. The monitors must be properly maintained to be functional at all times (Permit No. 0990026-012-AV).

7.3 Control Technology Description

PM emissions from Boiler No. 8 are controlled by two impingement wet scrubbers. The design pressure drop across the scrubbers is 2 to 10 inches H₂O. The design water inlet pressure to the scrubbers is 40 to 100 psig. The design total water flow rate to the scrubbers is 100 to 300 gpm. The effectiveness of the wet scrubbers is evaluated with an annual stack test and VE measurement. A detailed description of the control equipment is included in the Title V renewal application (Attachment GSH-EU6-I3).

7.4 Monitoring Approach

The monitoring approach is based on monitoring scrubber pressure drop and scrubber water flow rate. The monitoring approach is summarized in the table below:

Boiler No. 8	Indicator No. 1	Indicator No. 2
Indicator	Average pressure drop across each scrubber.	Water flow rate to each scrubber.
Measurement Approach	Pressure drop is monitored with a pressure transducer.	The scrubber water flow rate is measured using an orifice meter.

Indicator Range	An excursion is defined as any individual pressure drop below 5.8 inches H ₂ O for the north scrubber and any individual pressure drop below 5.0 inches H ₂ O for the south scrubber. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.	An excursion is defined as any individual water flow rate to the north scrubber below 99 gpm and any individual water flow rate to the south scrubber below 99 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.
Data Representativeness	The monitoring system consists of a pressure transducer which measures the pressure drop across each scrubber. The minimum accuracy of the device is 0.075%.	The scrubber water orifice meter is located on each scrubber's liquid supply line. The minimum accuracy of the device is ±0.5%.
Verification of Operational Status	Readout in boiler control room.	Readout in boiler control room.
QA/QC Practices and Criteria	The pressure transducer is maintained in accordance with the manufacturer's recommendations and calibrated annually or more frequently as needed.	The orifice meter is maintained in accordance with the manufacturer's recommendations and calibrated annually or more frequently as needed.
Monitoring Frequency	Pressure drop is monitored continuously.	Scrubber water flow rate is monitored continuously.
Data Collection Procedures	Reading taken once every eight hours.	Reading taken once every eight hours.
Averaging Period	NA	NA

7.5 Justification

Both pressure drop across the scrubbers and water flow rate to the scrubbers are recognized parameters for controlling PM emissions with wet scrubbers. The pressure drop is a measure of the energy imparted to the gas stream and, therefore, the efficiency of the scrubbing process. The water flow rate is a measure of sufficient fresh scrubbing liquid being supplied to the scrubbers.

Although not required by the current CAM Plan, scrubber inlet water supply pressure is currently monitored for Boiler No. 8 (Permit No. 0990026-012-AV). However, scrubber water flow rate provides a more direct indicator of adequate water supply to the scrubbers. Therefore, water delivery pressure is not proposed as a parameter for CAM purposes.

SCGCF has sufficient historic test data necessary to establish indicator values for pressure drop and water flow rate to the Boiler No. 8 wet scrubbers. The test data correlating the parameters to the PM emission levels is presented in Figures 7-1 through 7-4. Supporting information is contained in Appendix A.

The proposed parameter minimum values are based on 90 percent of the minimum parameter values from the test runs, using the historic test data. The calculations of the minimum parameter values are provided below:

- Average Pressure Drop (North Scrubber): Minimum test run value = 6.5 inches H₂O
 - Minimum parameter value = $6.4 \times 0.9 = 5.8$ inches H₂O
- Average Pressure Drop (South Scrubber): Minimum test run value = 6.9 inches H₂O
 - Minimum parameter value = $5.6 \times 0.9 = 5.0$ inches H₂O
- Total Water Flow Rate (North Scrubber): Minimum test run value = 110 gpm
 - Minimum parameter value = $110 \times 0.9 = 99$ gpm
- Total Water Flow Rate (South Scrubber): Minimum test run value = 110 gpm
 - Minimum parameter value = $110 \times 0.9 = 99$ gpm

Wet scrubber operating parameter values below these minimum parameter values would be indicative of abnormal operation of the wet scrubbers. This methodology is consistent with the establishment of wet scrubber operating limits under 40 CFR 63, Subpart DDDDD, which are the Industrial Boiler/Process Heater MACT standards (now vacated).

The current plan is based on collecting data once per 8-hour shift, according to specific condition F.14 of permit No. 0990026-012-AV. An excursion would occur whenever any individual reading is below the minimum parameter value. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.

APPENDIX A
HISTORIC PM COMPLIANCE TEST DATA
FOR BOILER NOS. 1 THROUGH 5 AND 8

Figure 2-1
SCGCF Boiler No. 1
PM vs. Average Pressure Drop

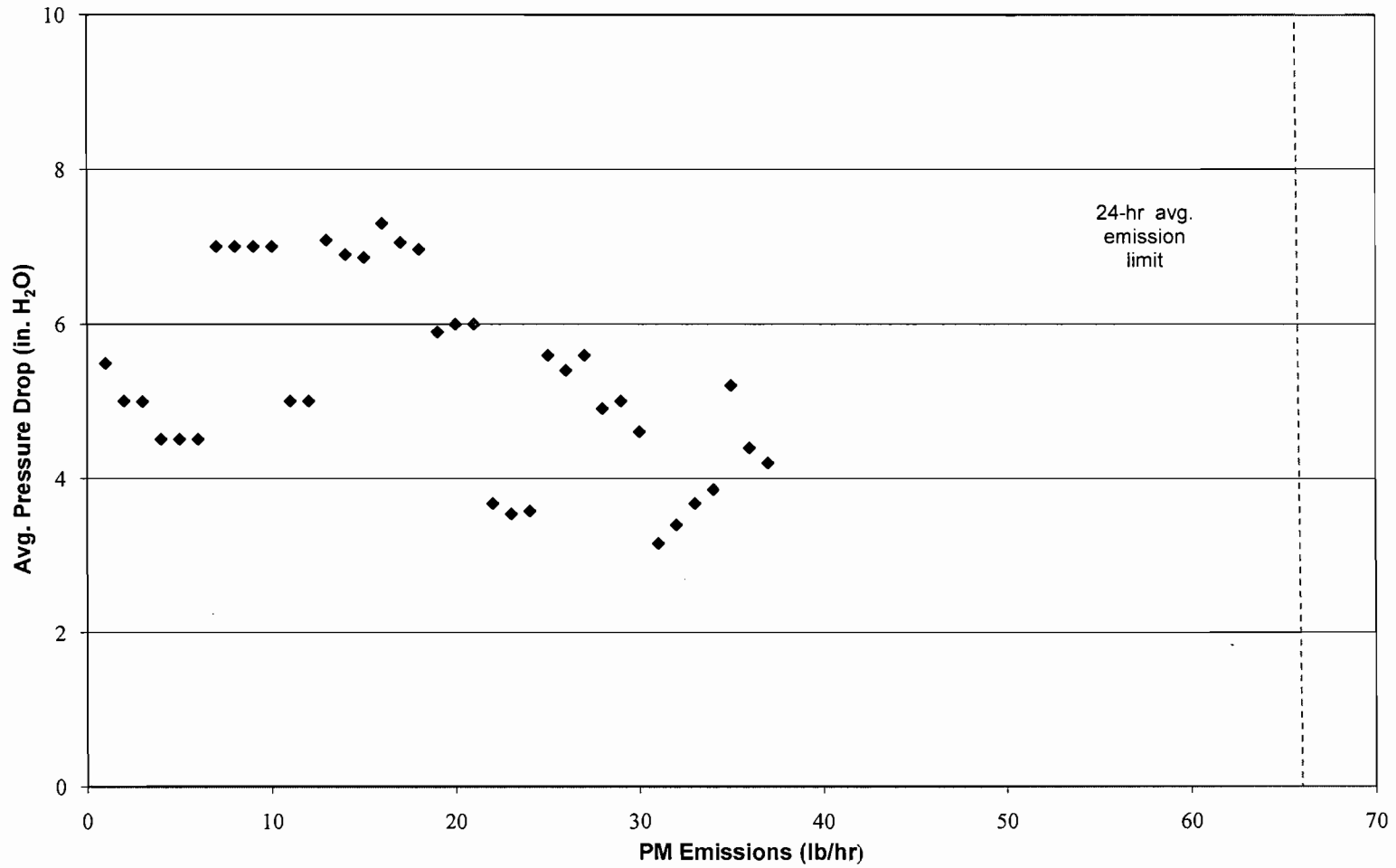


Figure 2-2
SCGCF Boiler No. 1
PM vs. Total Water Flow Rate

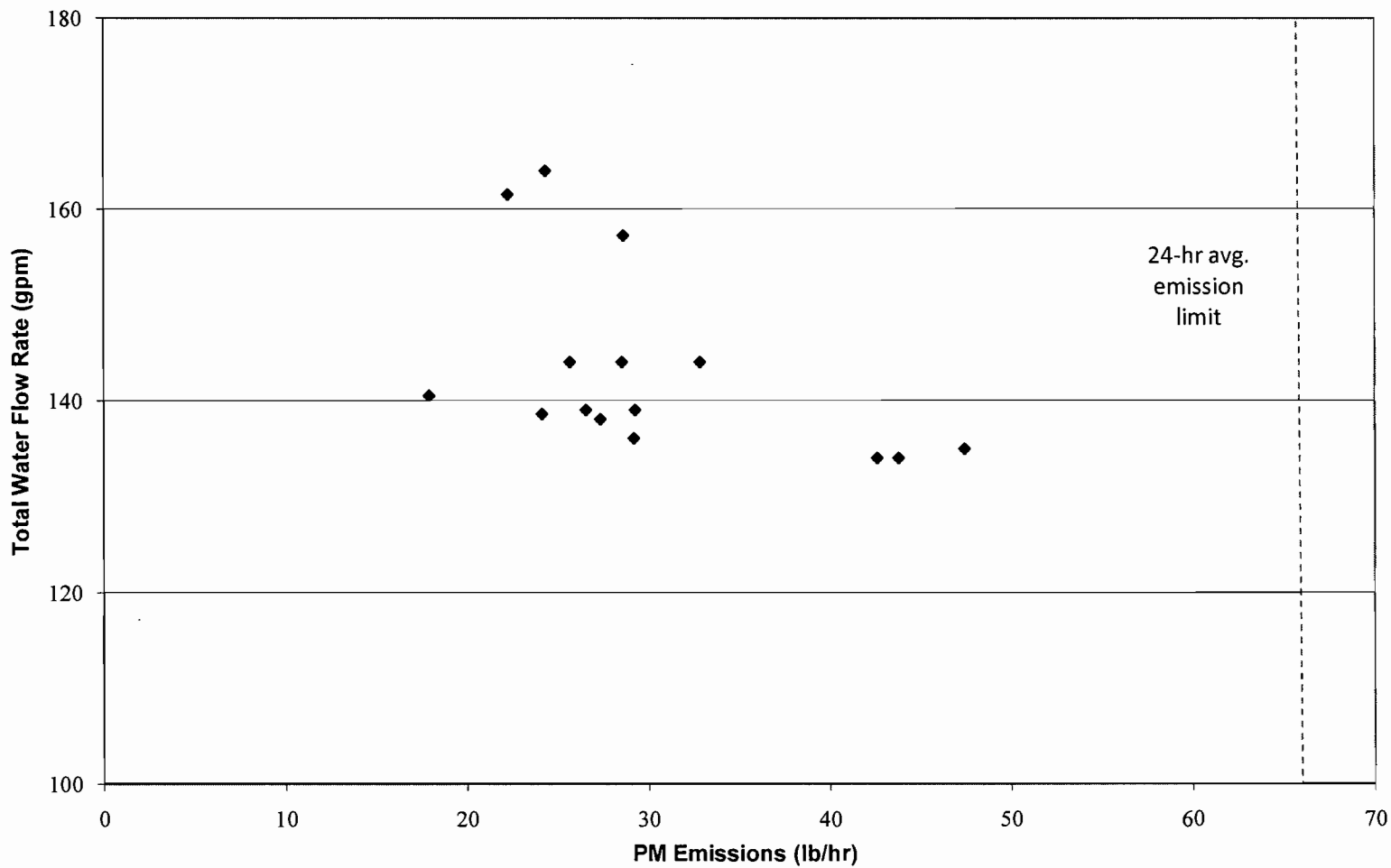


Figure 3-1
SCGCF Boiler No. 2
PM vs. Average Pressure Drop

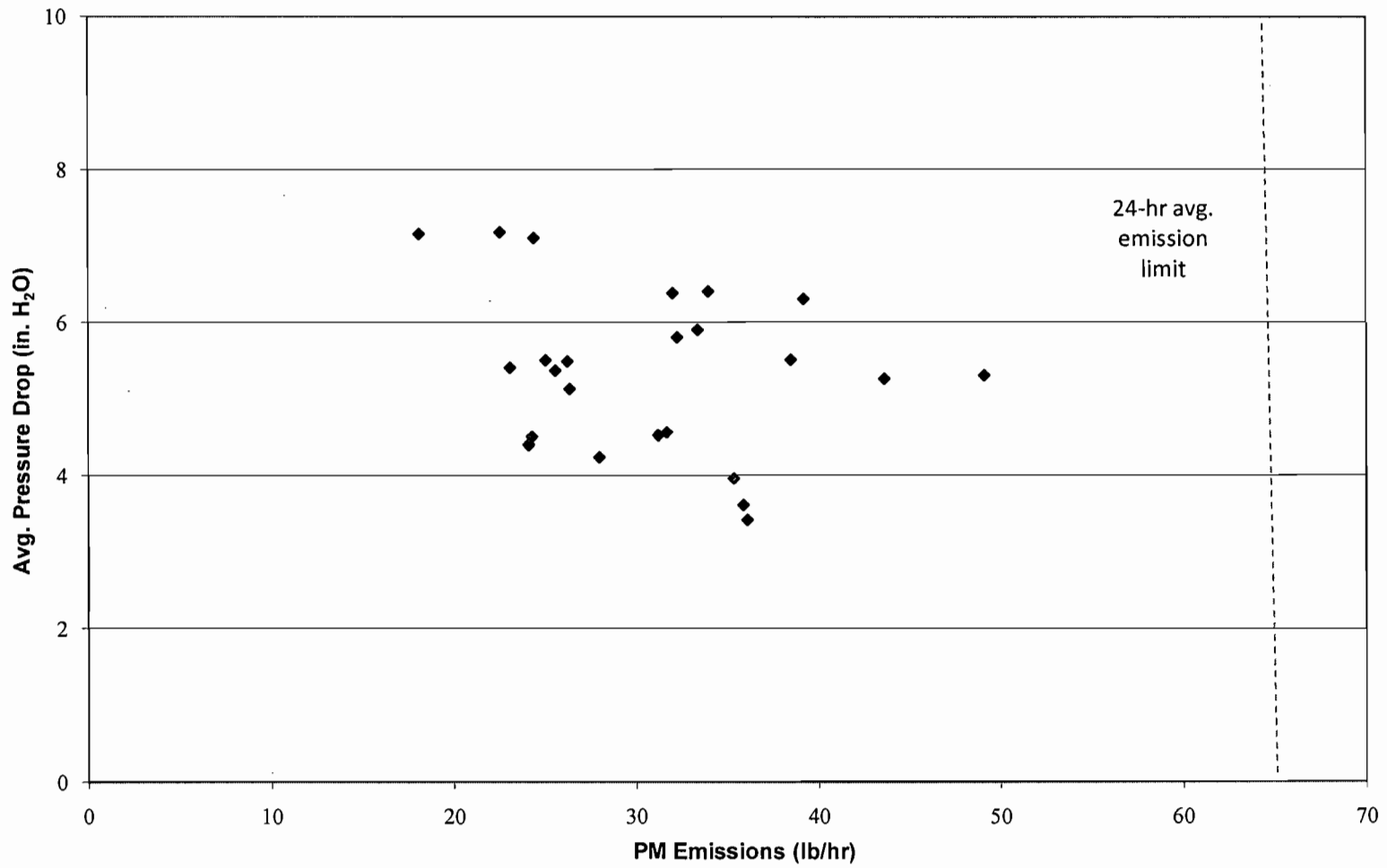


Figure 3-2
SCGCF Boiler No. 2
PM vs. Total Water Flow Rate

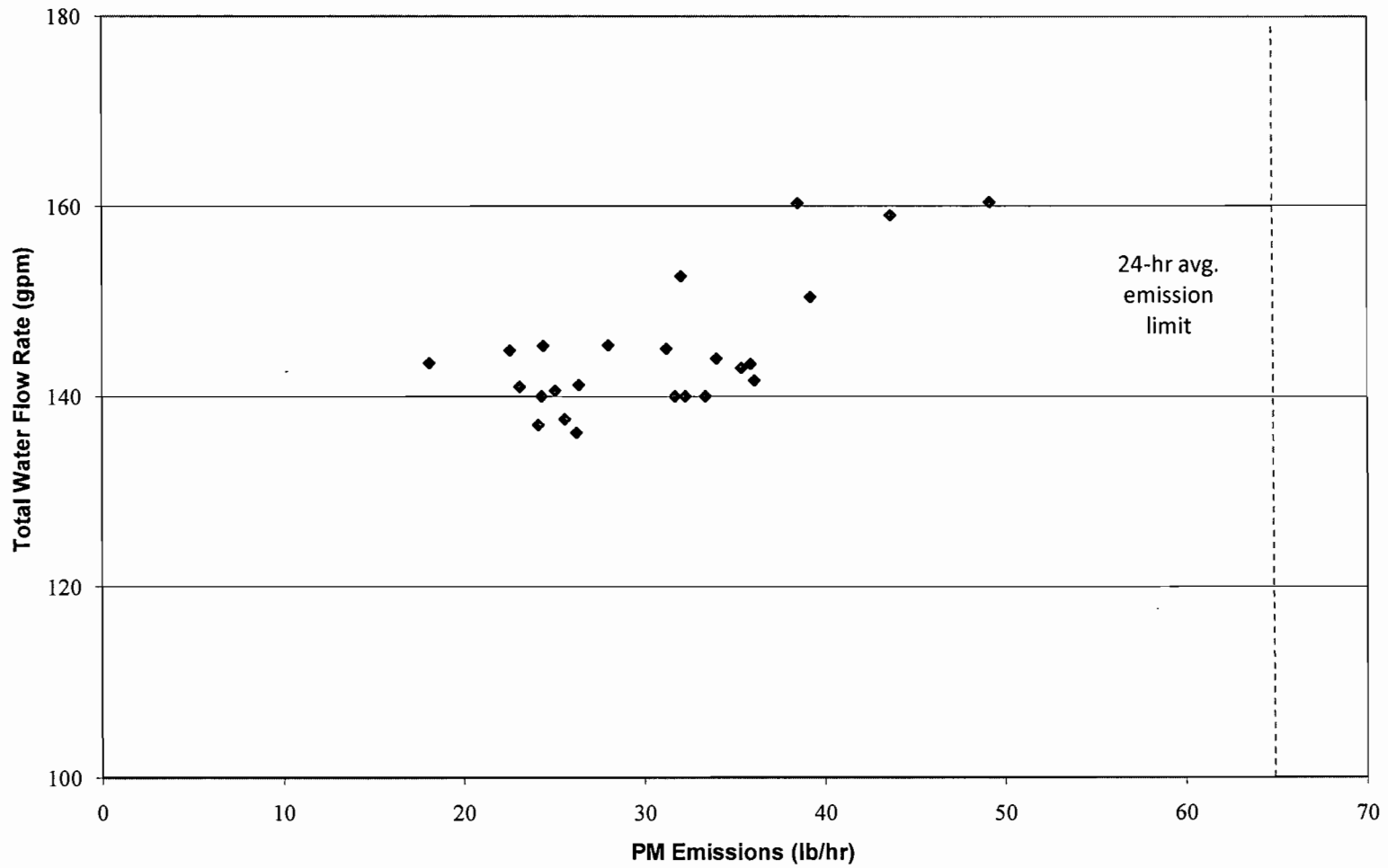


Figure 4-1
SCGCF Boiler No. 3
PM vs. Average Pressure Drop

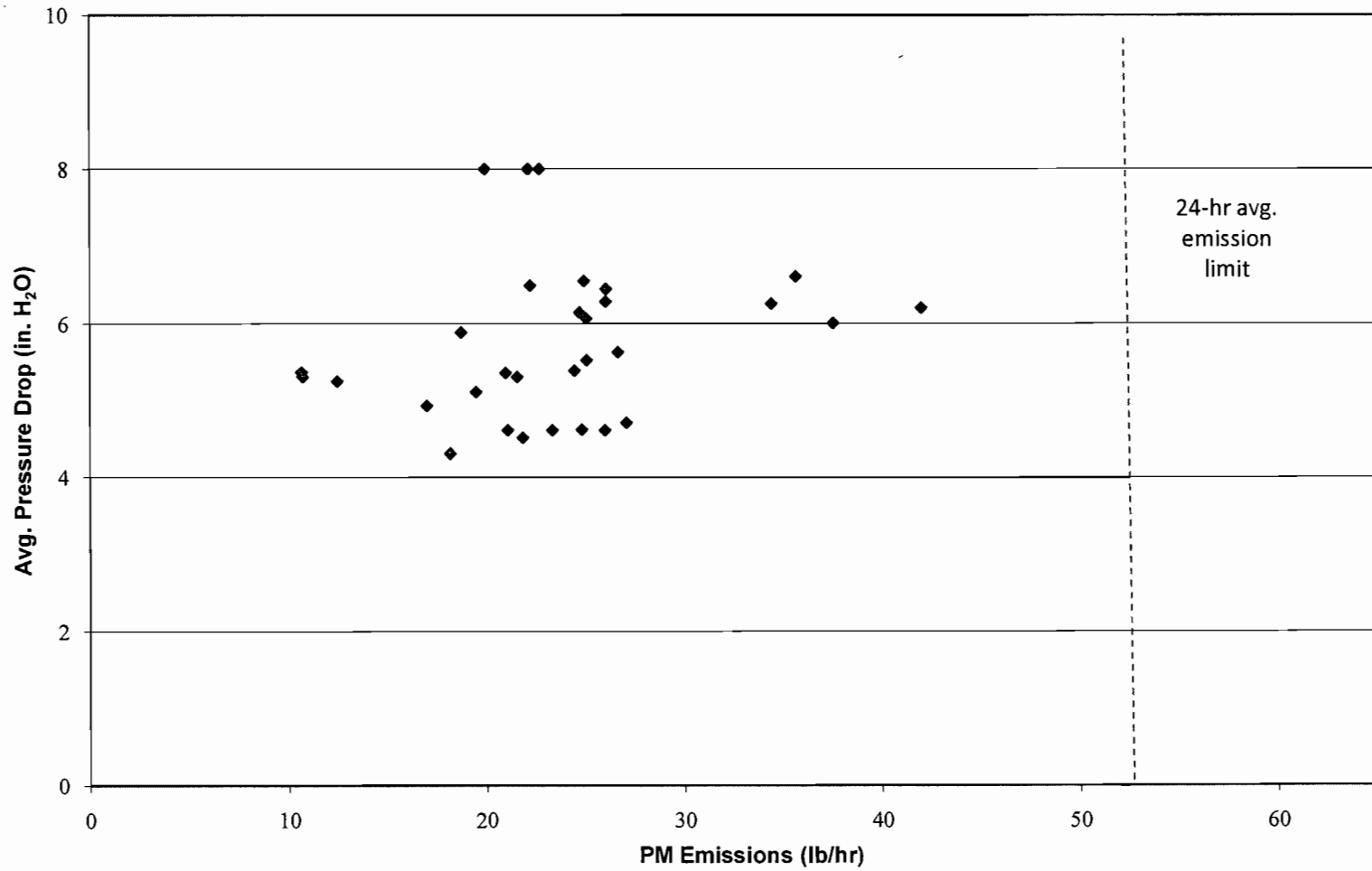


Figure 4-2
SCGCF Boiler No. 3
PM vs. Total Water Flow Rate

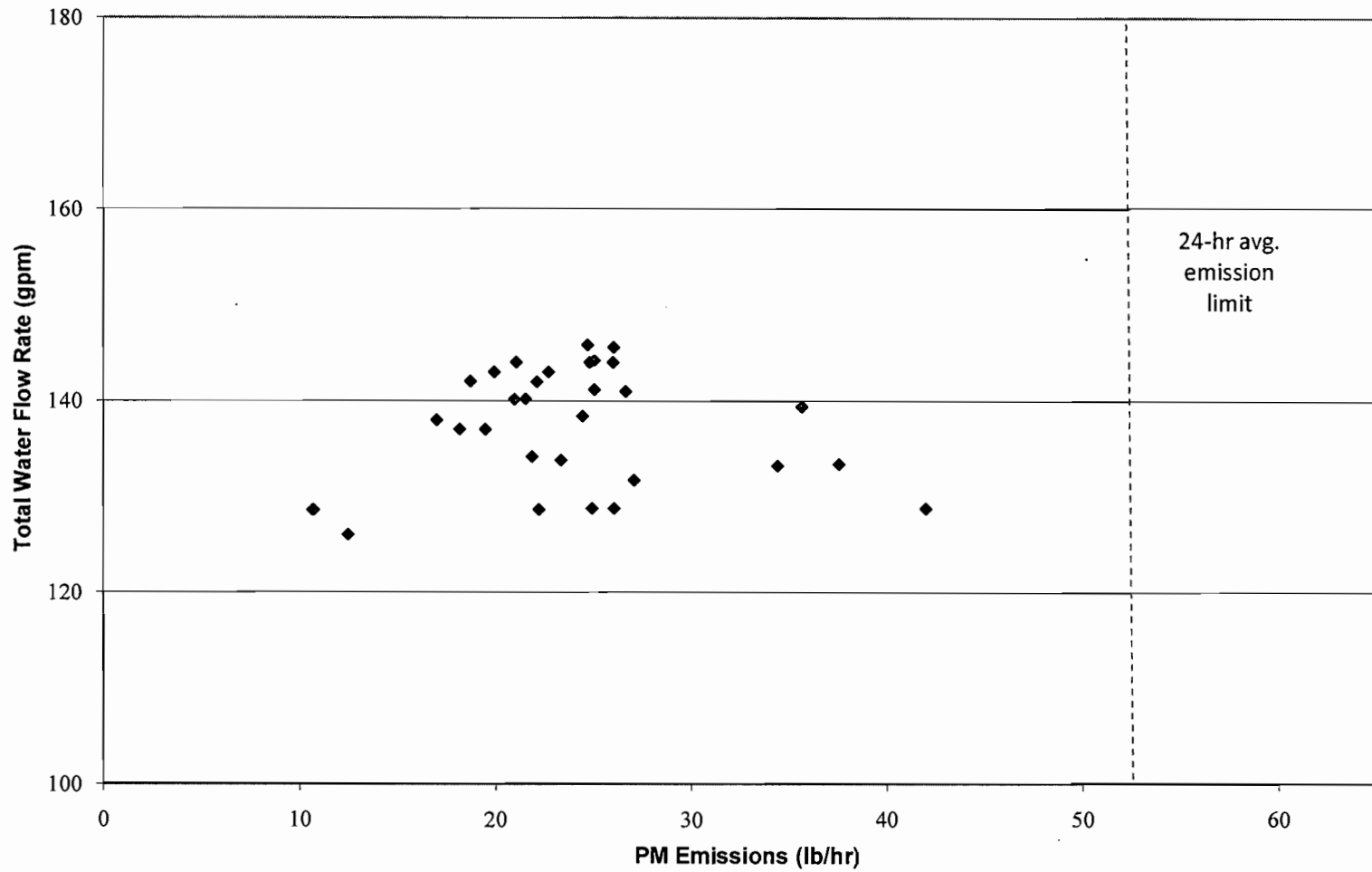


Figure 5-1
SCGCF Boiler No. 4
PM vs. Average Pressure Drop - North Scrubber

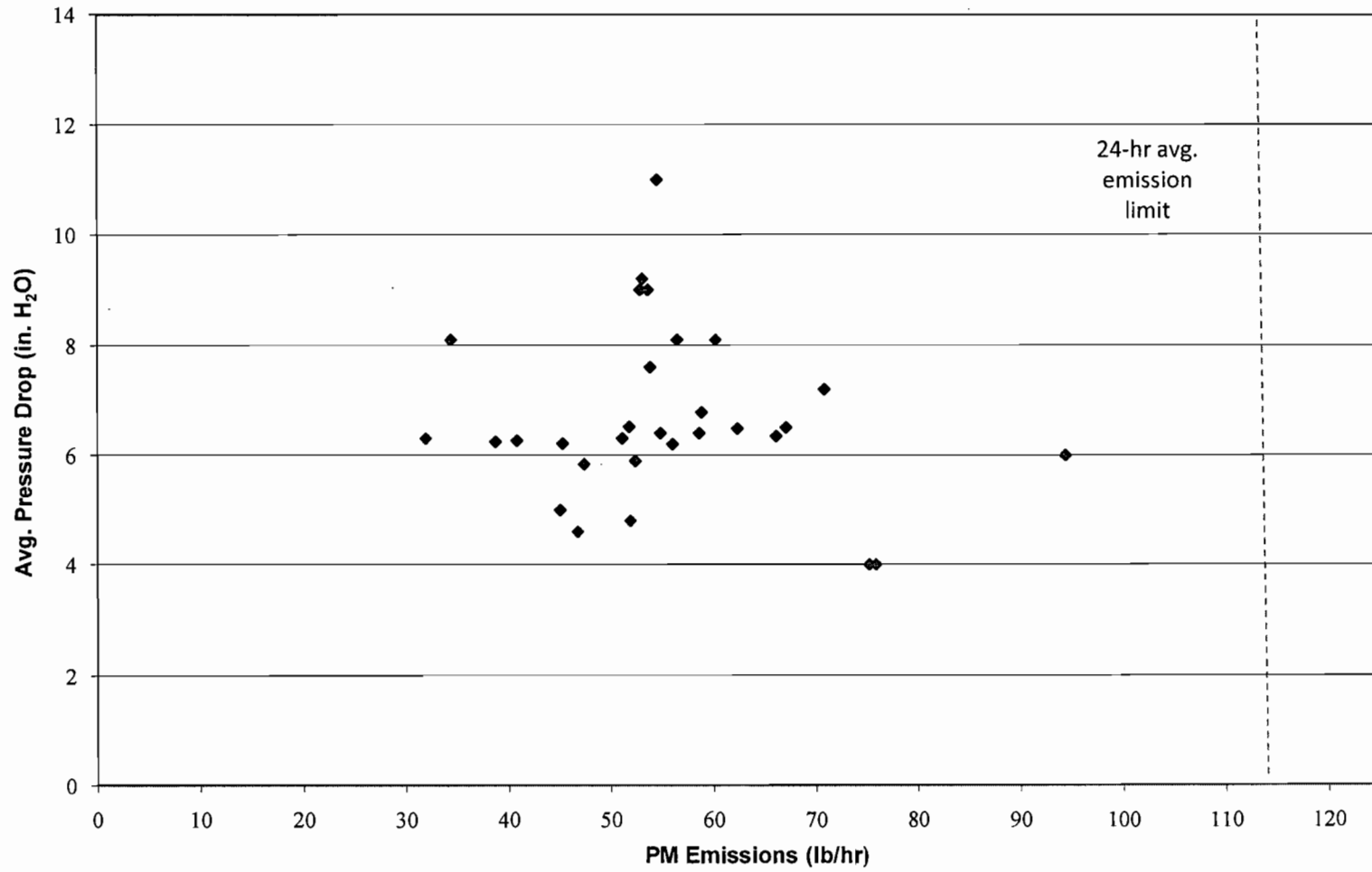


Figure 5-2
SCGCF Boiler No. 4
PM vs. Average Pressure Drop - South Scrubber

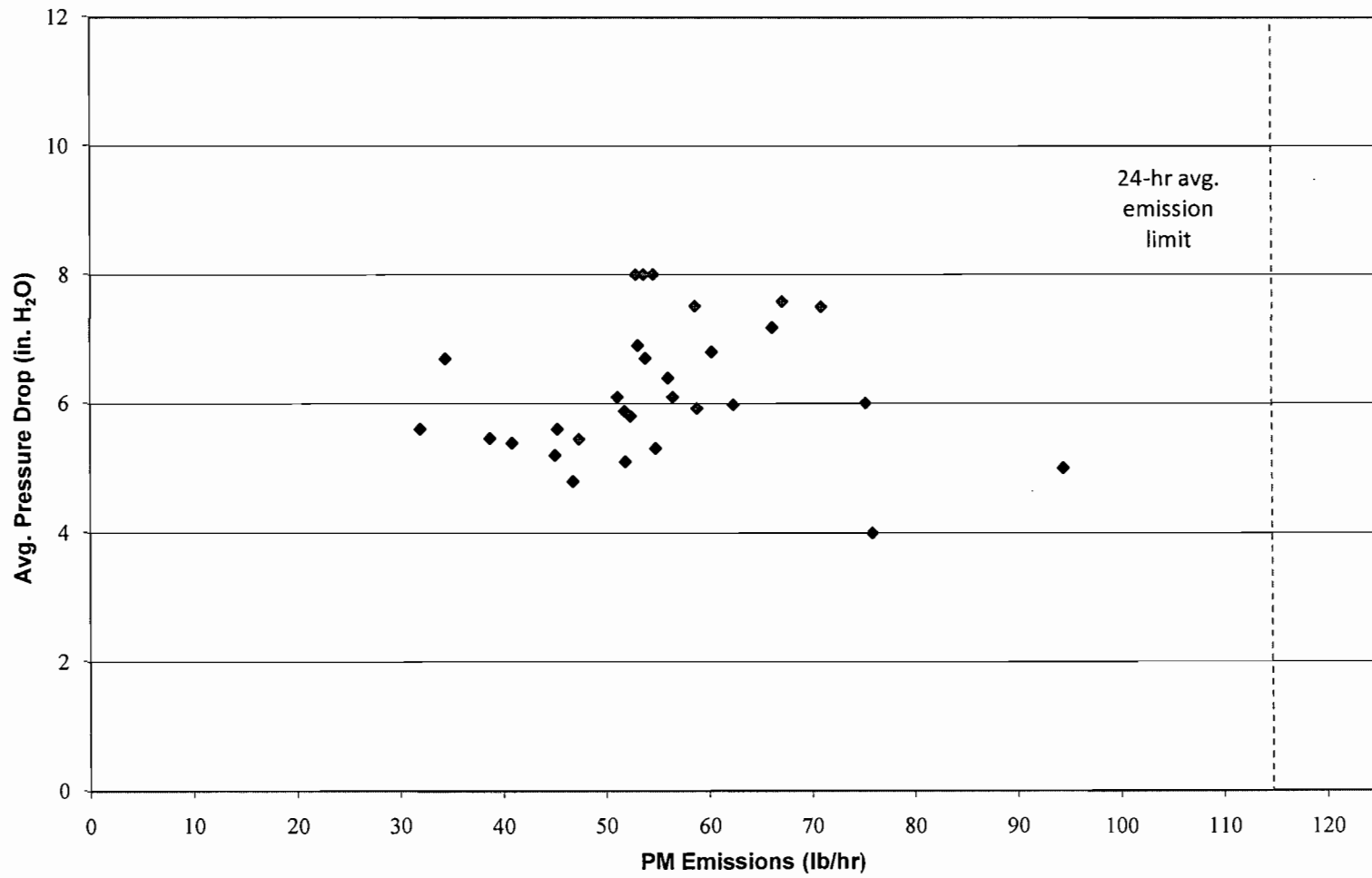


Figure 5-3
SCGCF Boiler No. 4
PM vs. Total Water Flow Rate

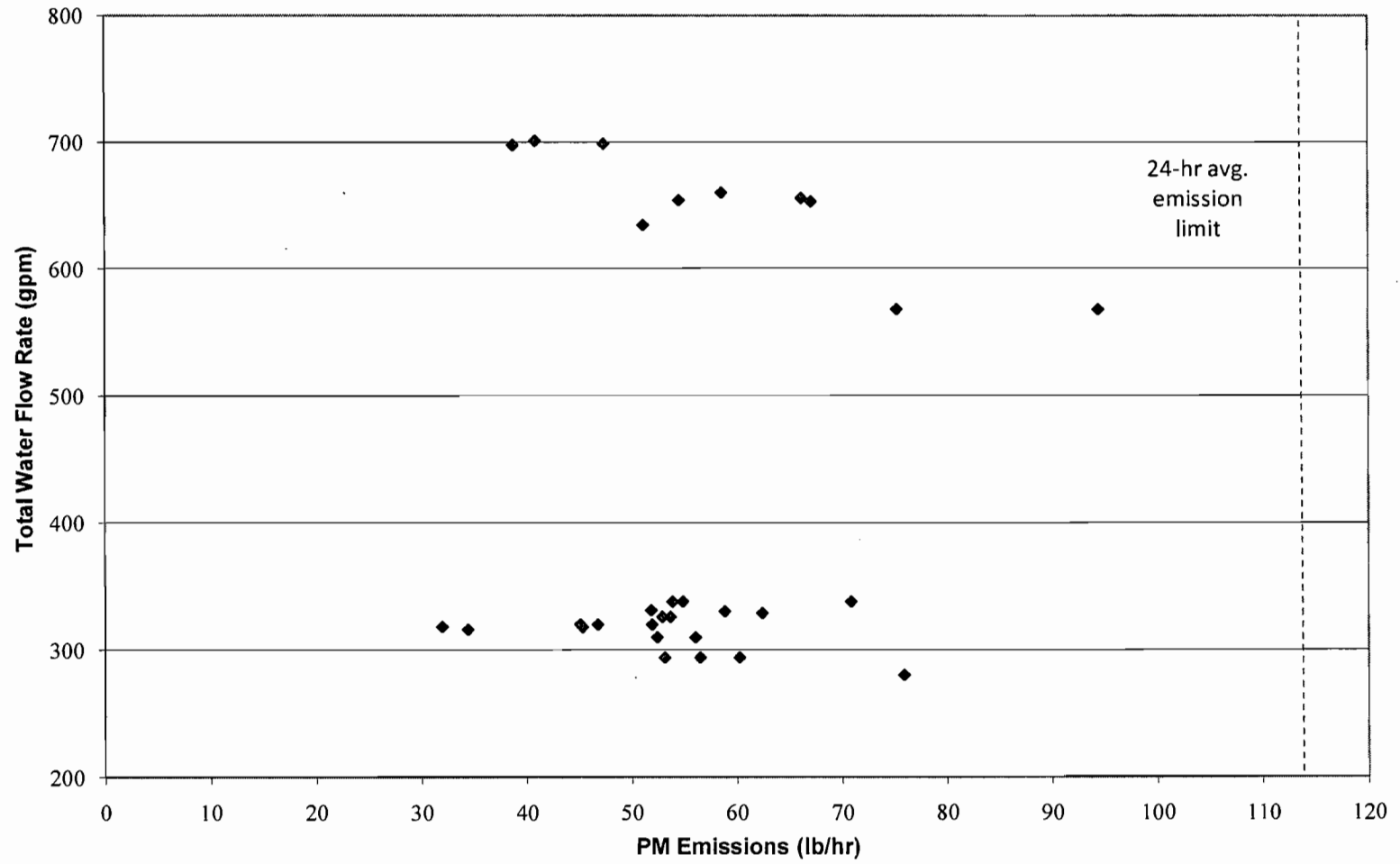


Figure 6-1
SCGCF Boiler No. 5
PM vs. Average Pressure Drop - North Scrubber

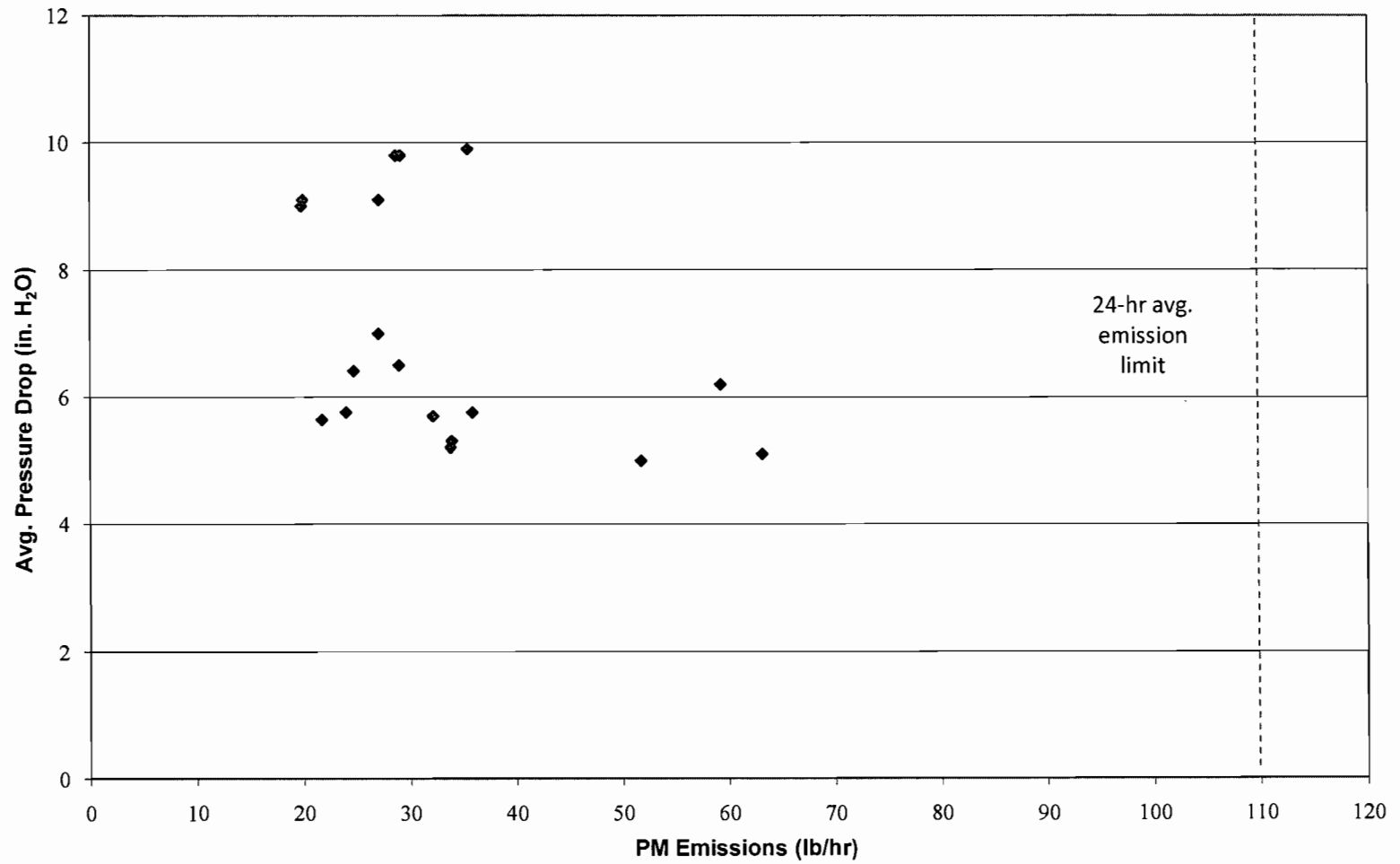


Figure 6-2
SCGCF Boiler No. 5
PM vs. Average Pressure Drop - South Scrubber

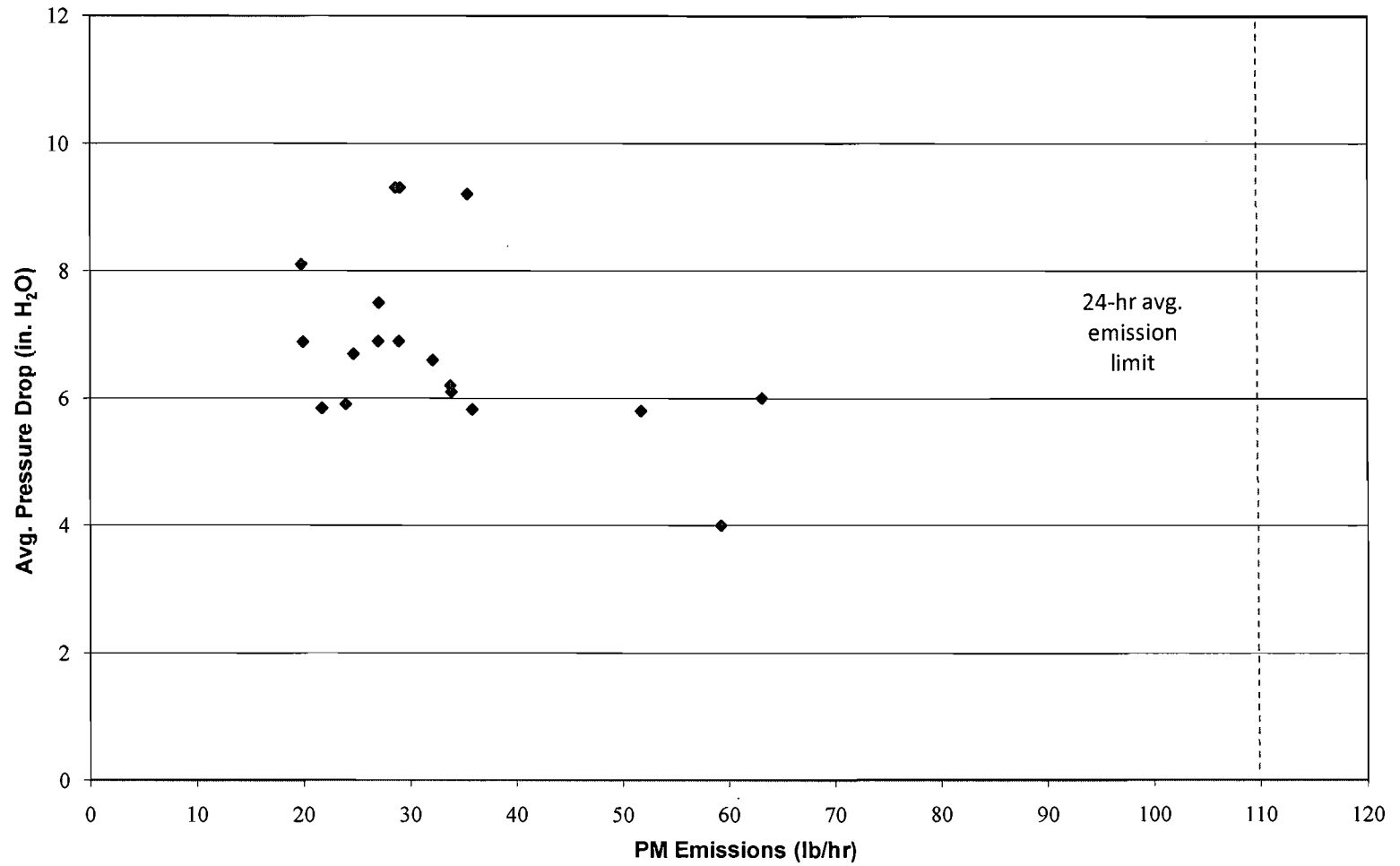


Figure 6-3
SCGCF Boiler No. 5
PM vs. Total Water Flow Rate

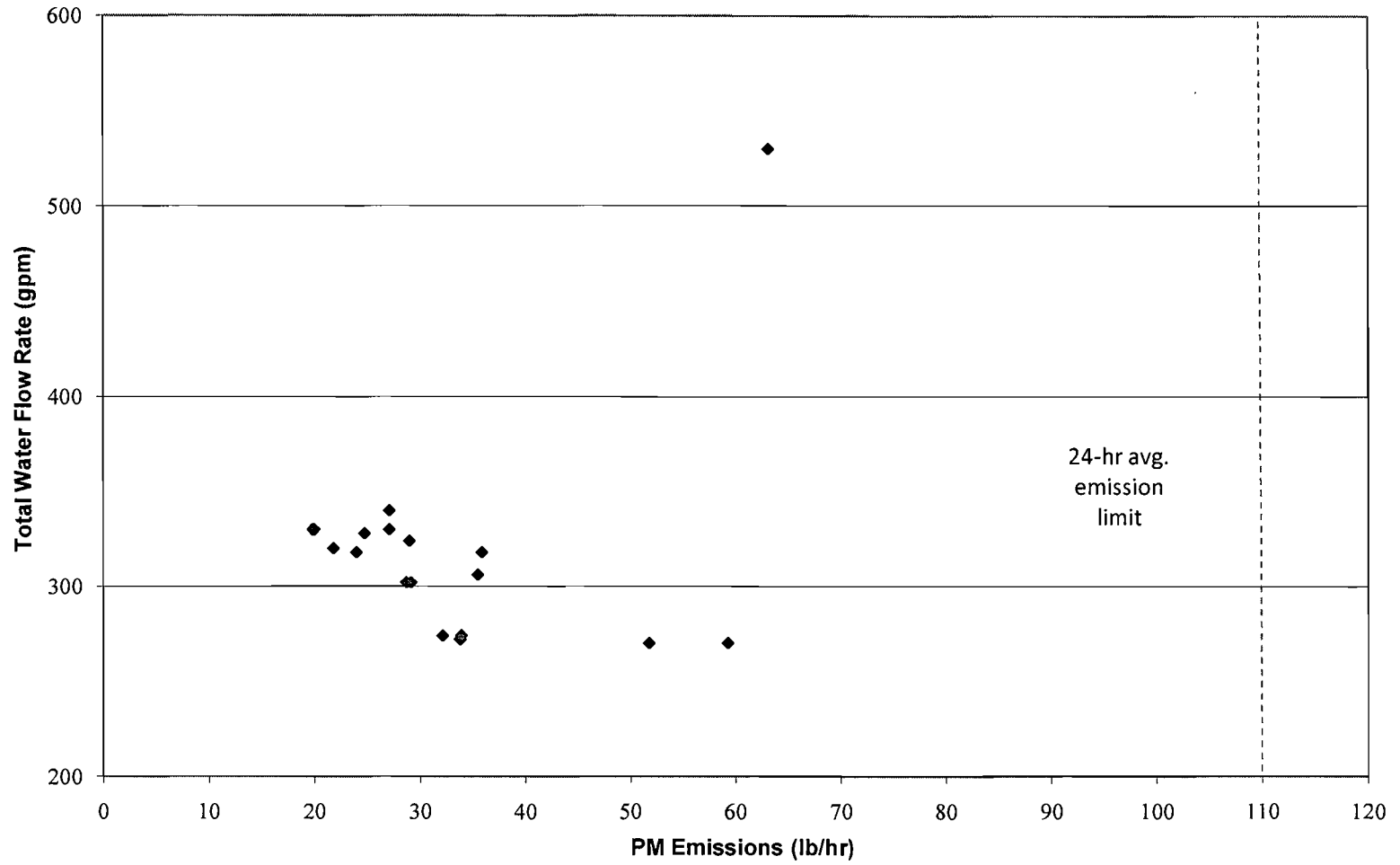


Figure 7-1
SCGCF Boiler No. 8
PM vs. Average Pressure Drop - North Scrubber

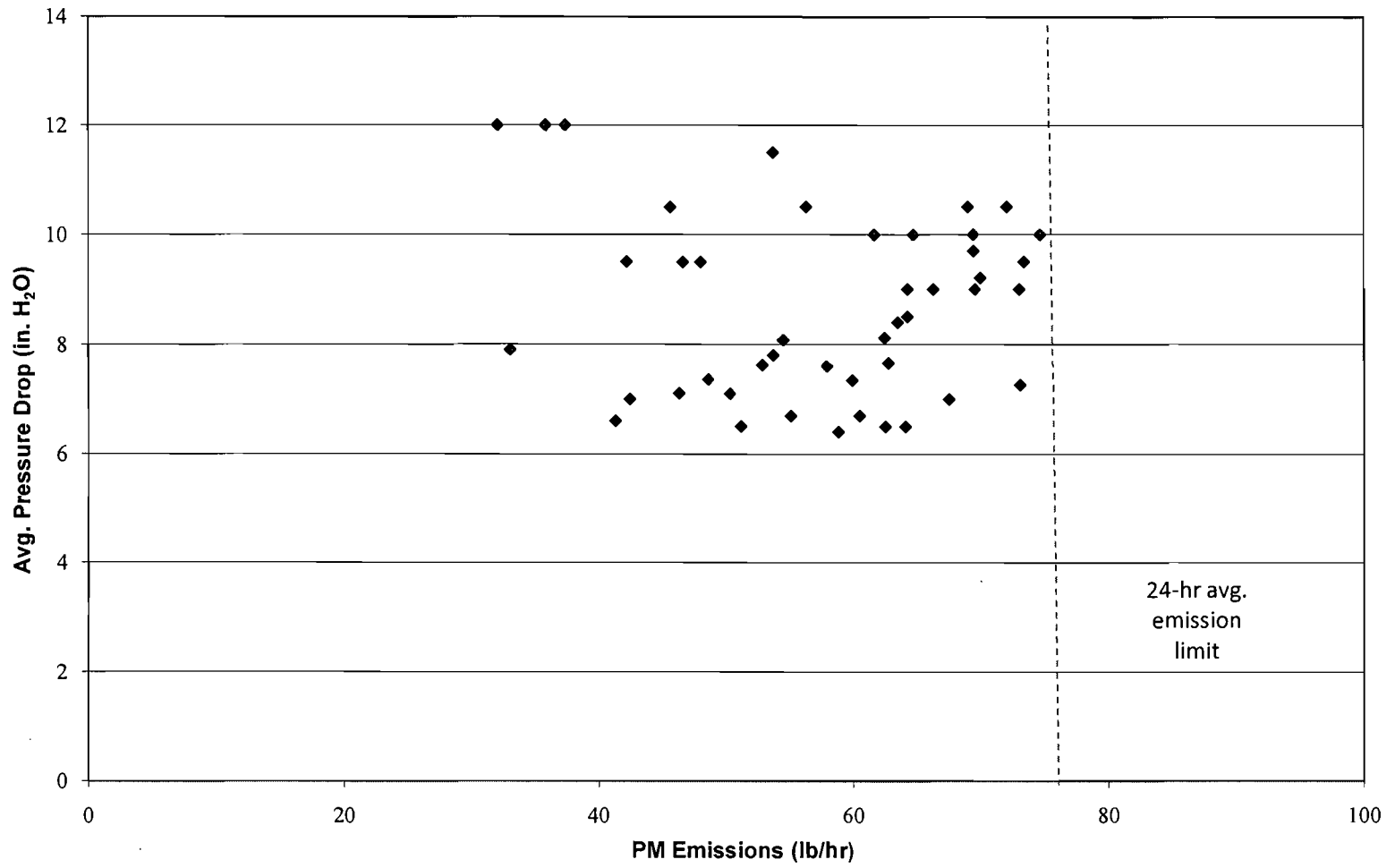


Figure 7-2
SCGCF Boiler No. 8
PM vs. Average Pressure Drop - South Scrubber

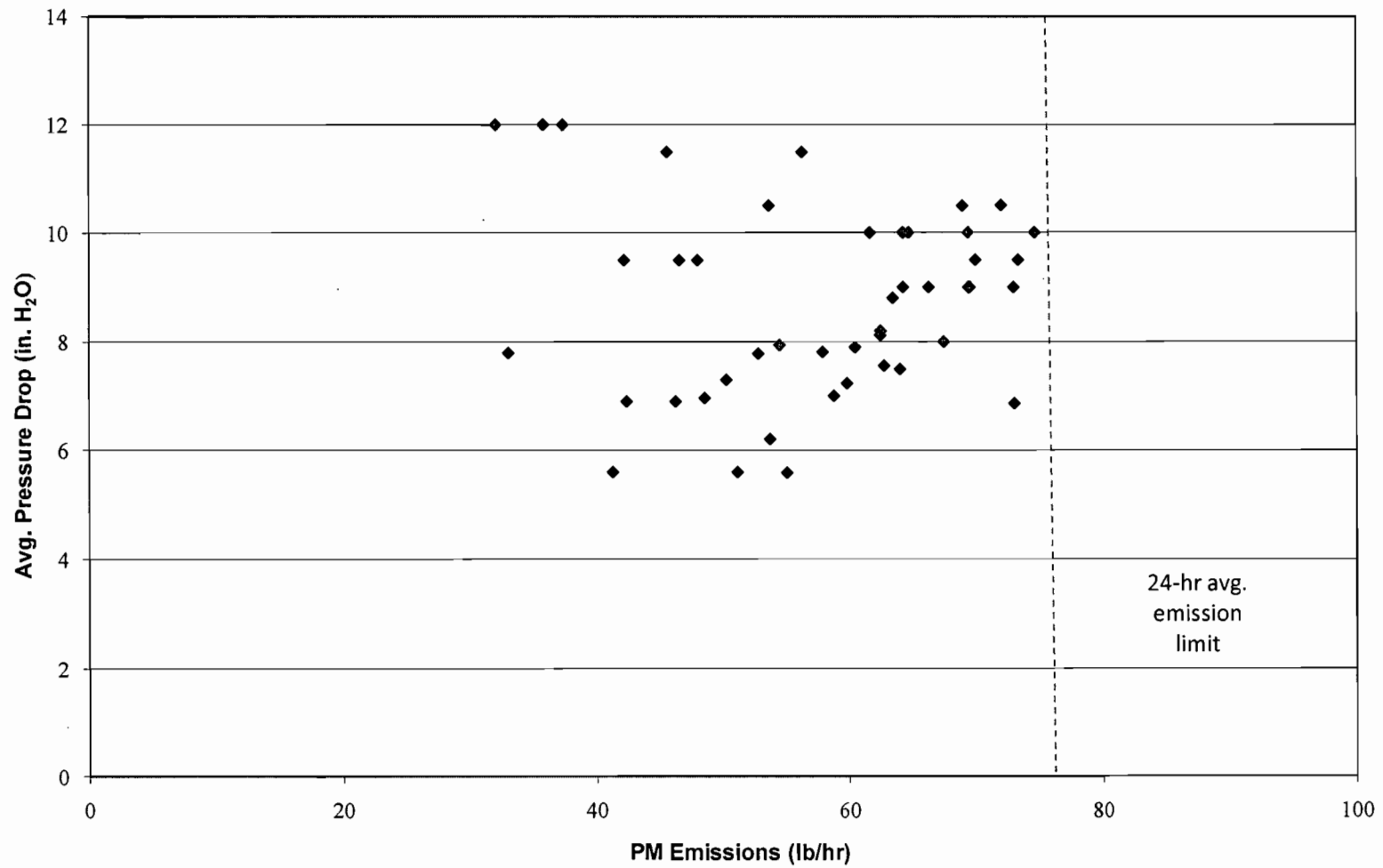


Figure 7-3
SCGCF Boiler No. 8
PM vs. Total Water Flow Rate - North Scrubber

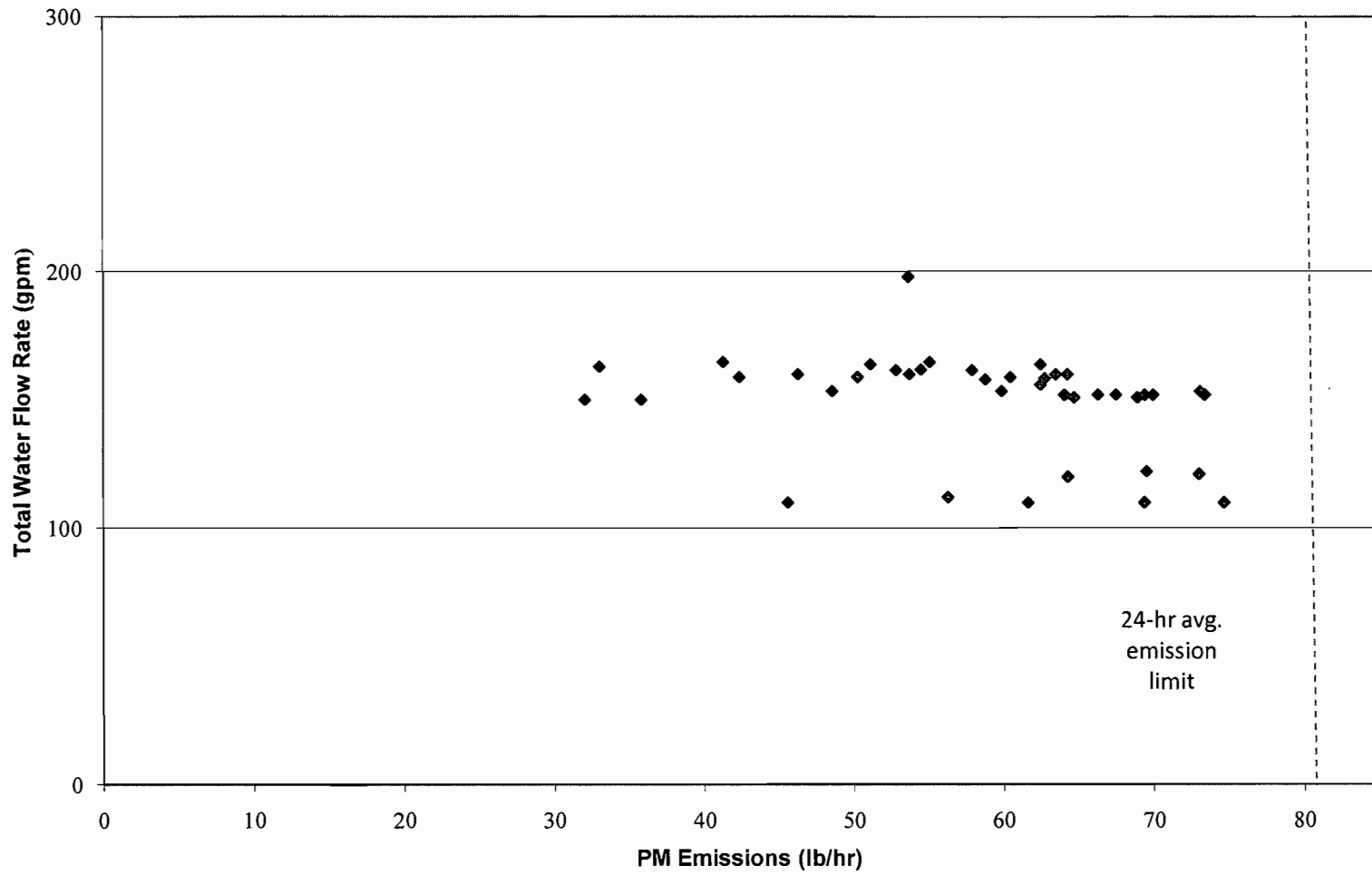
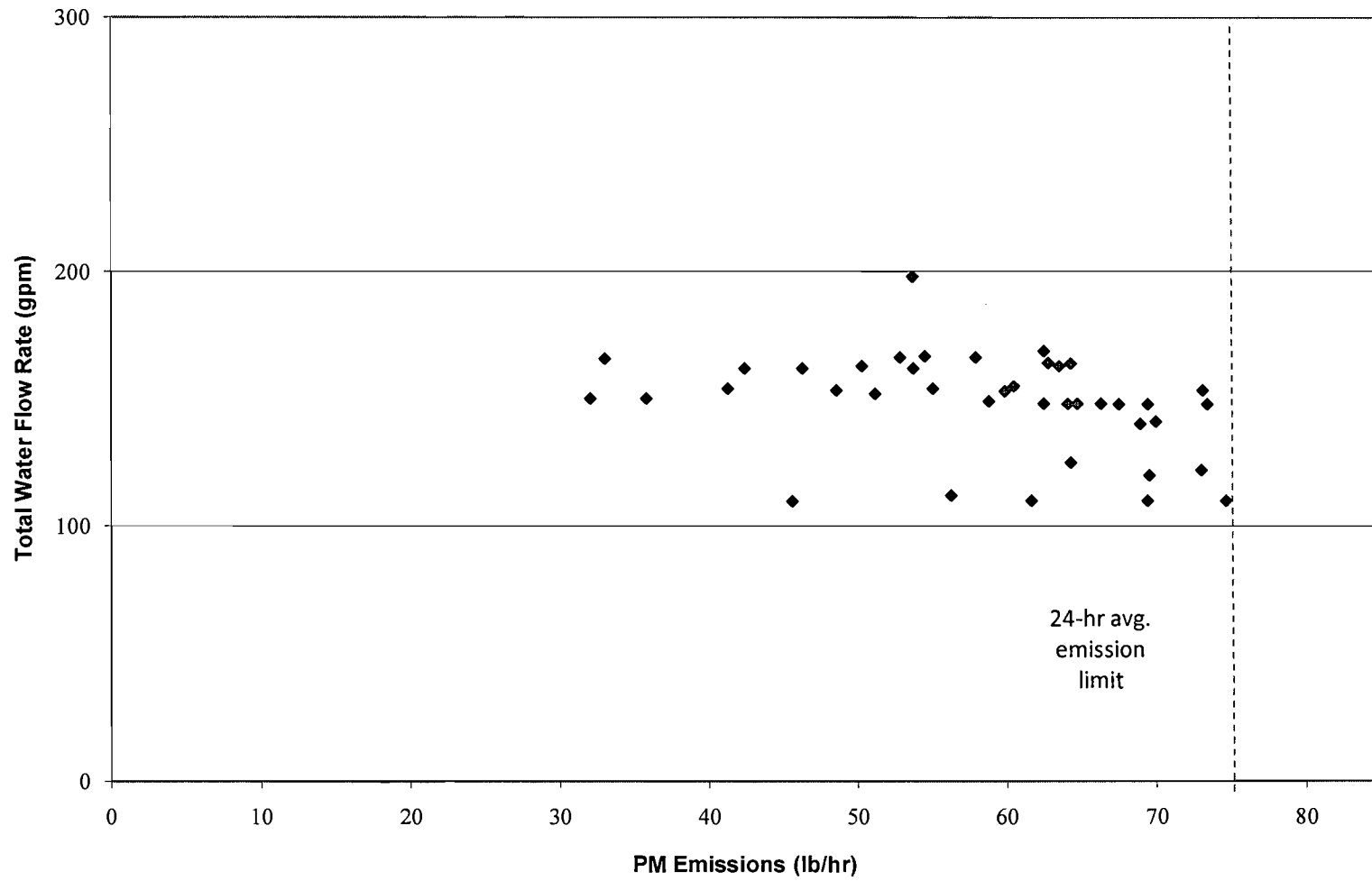


Figure 7-4
SCGCF Boiler No. 8
PM vs. Total Water Flow Rate - South Scrubber



**TABLE A-1. Individual Runs - Emissions Tests Performed on Bagasse Boilers in Florida
Sugar Cane Growers Cooperative of Florida, Belle Glade**

Unit	Run Number	Boiler Type	Test Date	Stack Gas Flow Rate (dscfm)	Stack Gas Flow Rate (acfm)	Steam Rate (lb/hr)	Total Heat Input Rate (MMBtu/hr)	Bagasse Burning Rate ¹ (TPH)	Allowable PM Emissions (EPA Method 5)		Actual PM Emissions ² (EPA Method 5)		Total Water Flow (gpm)		Avg. Pressure Drop (in. H ₂ O)		Water Level %		Oxygen (% dry)	Excess Air (%)	Avg. Liquid Pressure (PSI)
									lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	N	S	N	S	N	S			
Boiler 1	1	Traveling Grate	11/19/97	64,886	100,746	125,070	241.64	33.56	55.66	0.230	40.44	0.167	N/A		5.50				9.02	75	
Boiler 1	2	Traveling Grate	11/19/97	68,452	110,813	126,957	245.20	34.06	57.38	0.234	43.00	0.175	N/A		5.00				8.92	71	
Boiler 1	3	Traveling Grate	11/19/97	66,247	105,742	125,217	241.44	33.53	55.86	0.231	38.51	0.160	N/A		5.00				9.27	77	
Boiler 1	1	Traveling Grate	11/18/98	65,314	103,146	123,478	241.32	33.52	55.63	0.231	39.83	0.165	N/A		4.50				9.07	76	69
Boiler 1	2	Traveling Grate	11/18/98	65,399	104,440	116,471	226.38	31.44	49.84	0.220	38.65	0.171	N/A		4.50				9.07	76	69
Boiler 1	3	Traveling Grate	11/18/98	58,801	97,665	120,000	232.67	32.32	53.39	0.229	40.58	0.174	N/A		4.50				7.77	59	69
Boiler 1	1	Traveling Grate	12/09/99	56,310	94,594	139,412	270.74	37.60	63.91	0.236	42.61	0.157	134		7.00		84		6.48	45	
Boiler 1	2	Traveling Grate	12/09/99	61,472	102,875	141,176	274.47	38.12	64.85	0.236	47.42	0.173	135		7.00		84		6.65	36	
Boiler 1	3	Traveling Grate	12/09/99	59,761	101,097	142,609	276.71	38.43	66.05	0.239	43.79	0.158	134		7.00		84		6.50	45	
Boiler 1	1	Traveling Grate	11/15/00	73,772	115,601	120,000	232.18	32.25	54.43	0.234	31.36	0.135	N/A		N/A				9.72	86	
Boiler 1	2	Traveling Grate	11/15/00	71,585	114,326	121,765	236.19	32.80	55.08	0.233	35.92	0.152	N/A		N/A				9.61	85	
Boiler 1	3	Traveling Grate	11/15/00	71,101	114,974	120,870	234.79	32.61	54.59	0.233	33.38	0.142	N/A		N/A				9.52	83	
Boiler 1	1	Traveling Grate	11/14/01	65,459	109,300	127,059	246.84	34.28	59.07	0.239	32.83	0.133	144		7.00				7.57	56	
Boiler 1	2	Traveling Grate	11/14/01	65,301	107,099	115,833	224.78	31.22	53.57	0.238	28.54	0.127	144		5.00		98		8.36	66	
Boiler 1	3	Traveling Grate	11/14/01	65,000	105,639	111,045	215.18	29.89	50.83	0.236	25.64	0.119	144		5.00		98		8.94	74	
Boiler 1	1	Traveling Grate	11/13/02	63,791	102,712	123,409	239.39	33.25	55.80	0.233	17.88	0.075	141		7.08		59		8.55	68	55
Boiler 1	2	Traveling Grate	11/13/02	63,931	105,920	123,529	240.12	33.35	56.22	0.234	24.12	0.100	139		6.90		60		8.20	64	55
Boiler 1	3	Traveling Grate	11/13/02	66,452	109,723	126,957	247.13	34.32	57.83	0.234	26.54	0.107	139		6.86		60		7.70	58	55
Boiler 1	1	Traveling Grate	01/07/04	59,871	95,127	137,600	262.78	36.50	60.78	0.231	24.31	0.092	164		7.30		64		7.27	54	
Boiler 1	2	Traveling Grate	01/07/04	58,919	96,206	140,833	268.80	37.33	62.35	0.232	22.22	0.083	162		7.05		63		6.20	44	
Boiler 1	3	Traveling Grate	01/07/04	59,778	104,824	140,597	268.36	37.27	62.26	0.232	28.60	0.107	157		6.96		64		5.88	39	
Boiler 1	1	Water-Cooled Pinhole	12/15/04	63,484	109,438	132,537	249.24	34.62	57.08	0.229	27.35	0.110	138		5.90		48		7.85	60	
Boiler 1	2	Water-Cooled Pinhole	12/15/04	63,706	113,864	130,541	245.30	34.07	56.06	0.229	29.20	0.119	136		6.00		46		8.31	65	
Boiler 1	3	Water-Cooled Pinhole	12/15/04	70,287	119,463	132,353	249.00	34.58	57.10	0.229	29.24	0.117	139		6.00		48		8.35	66	
Boiler 1	1	Water-Cooled Pinhole	01/13/06	53,423	88,199	144,000	275.90	38.32			23.60	0.086	134		3.68		43		8.30	65	46
Boiler 1	2	Water-Cooled Pinhole	01/13/06	55,826	92,043	149,000	284.60	39.53			24.14	0.085	133		3.54		43		8.71	70	46
Boiler 1	3	Water-Cooled Pinhole	01/13/06	54,255	89,559	149,000	283.10	39.32			20.87	0.074	132		3.58		43		8.48	67	46
Boiler 1	1	Water-Cooled Pinhole	12/08/06	75,691	113,263	126,000	234.80	32.61	53.36	0.227	22.87	0.097	132		5.60		45		9.77	86	
Boiler 1	2	Water-Cooled Pinhole	12/08/06	72,313	109,579	131,471	245.20	34.06	56.02	0.228	26.66	0.109	134		5.40		45		9.20	78	
Boiler 1	3	Water-Cooled Pinhole	12/08/06	69,611	109,868	127,941	238.60	33.14	54.43	0.228	26.22	0.110	131		5.60		47		9.50	82	
Boiler 1	1	Water-Cooled Pinhole	12/12/07	60,851	95,708	124,811	233.37	32.41	53.20	0.228	23.47	0.101	140		4.90		35		9.05	75	48
Boiler 1	2	Water-Cooled Pinhole	12/12/07	67,749	102,810	131,865	247.62	34.39	56.60	0.229	25.86	0.104	139		5.00		32		8.47	67	48
Boiler 1	3	Water-Cooled Pinhole	12/12/07	63,746	101,578	135,652	254.58	35.36	58.35	0.229	25.22	0.103	138		4.60		29		8.07	62	48
Boiler 1	1	Water-Cooled Pinhole	01/07/09	64,513	100,301	140,000	268.11	37.24	57.54	0.215	34.19	0.128	133		3.16		45		8.90	73	60
Boiler 1	2	Water-Cooled Pinhole	01/07/09	64,543	102,663	140,426	269.31	37.40	57.50	0.214	39.22	0.146	131		3.40		45		8.55	68	60
Boiler 1	3	Water-Cooled Pinhole	01/08/09	62,487	98,553	141,882	271.74	37.74	57.93	0.213	32.54	0.120	134		3.68		44		8.80	72	60
Boiler 1	4	Water-Cooled Pinhole	01/08/09	60,301	105,897	135,882	260.20	36.14	--	--	--	--	134		3.86		45		9.54	83	60
Boiler 1	1	Water-Cooled Pinhole	12/16/09	56,995	100,323	140,211	264.90	36.79	61.26	0.231	15.60	0.059	124		5.20		42		8.39	65	
Boiler 1	2	Water-Cooled Pinhole	12/16/09	57,478	99,078	146,866	279.20	38.78	65.97	0.236	19.33	0.069	126		4.40		41		8.15	62	
Boiler 1	3	Water-Cooled Pinhole	12/16/09	58,498	100,285	143,143	273.00	37.92	64.46	0.24	25.16	0.092	131		4.20		39		8.36	65	
		Number of Runs		40	40	40	40	40	36	36	39	39	31		37		30		40	40	16
		MEAN		63,684	103,876	131,837	252.37	35.05	57.56	0.230	30.18	0.121	138		5.32		54		8.38	67	56
		MINIMUM		53,423	88,199	111,045	215.18	29.89	49.84	0.213	15.60	0.059	124		3.16		29		5.88	36	46
		MAXIMUM		75,691	119,463	149,000	284.60	39.53	66.05	0.239	47.42	0.175	164		7.30		98		9.77	86	69
		STD DEVIATION		5,369	7,292	9,848	18.15	2.52	4.09	0.006	8.00	0.033	9		1.27		19		0.99	13	8
		95% CL OF RUNS		74,422	118,460	151,533	288.67	40.09	65.75	0.243	46.17	0.186	156		7.85		91		10.35	92	73
		GEOMETRIC MEAN		63,464	103,625	131,476	251.74	34.96	57.42	0.230	29.15	0.116	138		5.17		51		8.31	65	55

**TABLE A-1. Individual Runs - Emissions Tests Performed on Bagasse Boilers in Florida
Sugar Cane Growers Cooperative of Florida, Belle Glade**

Unit	Run Number	Boiler Type	Test Date	Stack Gas Flow Rate	Stack Gas Flow Rate	Steam Rate	Total Heat Input Rate	Bagasse Burning Rate ¹	Allowable PM Emissions (EPA Method 5)		Actual PM Emissions ² (EPA Method 5)		Total Water Flow (gpm)		Avg. Pressure Drop (in. H ₂ O)		Water Level %		Oxygen	Excess Air	Avg. Liquid Pressure
				(dscfm)	(acfm)	(lb/hr)	(MMBtu/hr)	(TPH)	lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	N	S	N	S	N	S	(%, dry)	(%)	(PSI)
Boiler 2	1	Traveling Grate ³	01/21/04	80,575	120,655	125,538	239.94	33.33	55.27	0.230	33.98	0.142	144		6.40		56		10.36	97	
Boiler 2	2	Traveling Grate ³	01/21/04	80,607	123,887	131,818	223.87	31.09	59.21	0.231	39.20	0.175	150		6.30		56		9.18	77	50
Boiler 2	3	Traveling Grate ³	01/21/04	72,609	114,816	134,769	230.06	31.95	60.73	0.232	32.00	0.139	153		6.38		56		9.12	76	50
Boiler 2	1	Traveling Grate ³	12/17/04	72,111	111,673	128,571	247.79	34.42	56.95	0.230	36.11	0.146	142		3.42				8.54	68	
Boiler 2	3	Traveling Grate ³	12/17/04	76,414	117,326	125,915	241.02	33.48	54.55	0.226	35.36	0.147	143		3.96				9.30	79	
Boiler 2	4	Traveling Grate ³	12/17/04	71,191	109,338	130,286	249.24	34.62	56.64	0.227	35.88	0.144	143		3.62				9.06	75	
Boiler 2	1	Traveling Grate ³	01/27/05	72,664	117,107	133,846	261.40	36.31	59.90	0.229	38.48	0.147	160		5.50				9.79	87	
Boiler 2	2	Traveling Grate ³	01/27/05	72,357	119,141	139,385	272.20	37.81	62.30	0.229	49.14	0.181	160		5.30				8.56	68	
Boiler 2	3	Traveling Grate ³	01/27/05	74,303	119,440	141,231	272.70	37.88	62.50	0.229	43.63	0.160	159		5.26				8.41	66	
Boiler 2	1	Traveling Grate ³	01/17/06	55,850	88,825	145,000	275.60	38.28			26.36	0.096	141		5.12		43		9.05	75	46
Boiler 2	2	Traveling Grate ³	01/17/06	60,485	96,351	141,000	268.10	37.24			25.03	0.093	141		5.50		43		8.99	74	46
Boiler 2	3	Traveling Grate ³	01/17/06	55,840	89,197	149,000	283.10	39.32			23.07	0.081	141		5.40		43		8.25	64	45
Boiler 2	1	Traveling Grate ³	01/17/07	68,734	107,826	140,000	268.75	37.33	61.22	0.228	31.68	0.118	140		4.56		37		9.51	82	50
Boiler 2	2	Traveling Grate ³	01/17/07	60,423	94,379	143,333	274.92	38.18	62.71	0.228	27.98	0.102	145		4.24		40		8.96	74	51
Boiler 2	3	Traveling Grate ³	01/17/07	65,933	106,028	146,087	278.57	38.69	63.66	0.228	31.21	0.112	145		4.52		40		8.77	71	51
Boiler 2	1	Traveling Grate ³	12/20/07	76,291	115,866	133,151	250.42	34.78	56.95	0.227	24.10	0.096	137		4.40		42		9.67	85	48
Boiler 2	2	Traveling Grate ³	12/20/07	73,922	113,017	129,167	242.29	33.65	55.83	0.230	25.56	0.105	138		5.36		42		9.95	89	48
Boiler 2	3	Traveling Grate ³	12/20/07	74,885	112,738	118,400	220.64	30.64	49.36	0.224	26.23	0.119	136		5.48		42		11.20	113	48
Boiler 2	1	Traveling Grate ³	01/14/09	68,866	99,794	134,430	255.81	35.53	56.81	0.222	24.38	0.095	145		7.10		43		11.28	115	60
Boiler 2	2	Traveling Grate ³	01/14/09	66,543	100,032	131,392	249.43	34.64	55.44	0.222	22.53	0.090	145		7.17		44		10.71	103	60
Boiler 2	3	Traveling Grate ³	01/14/09	65,049	95,582	130,263	248.04	34.45	55.19	0.223	18.07	0.073	144		7.15		45		10.89	107	60
Boiler 2	1	Traveling Grate ³	12/17/09	69,566	109,771	143,284	266.44	37.01	61.01	0.229	33.36	0.125	140		5.90		40		9.82	87	
Boiler 2	2	Traveling Grate ³	12/17/09	70,920	113,071	140,548	261.07	36.26	58.85	0.225	32.25	0.124	140		5.80		37		10.24	95	
Boiler 2	3	Traveling Grate ³	12/17/09	72,390	110,638	138,857	257.09	35.71	56.61	0.220	24.27	0.094	140		4.50		36		10.59	101	
		Number of Runs		24	24	24	24	24	21	21	24	24	24		24.00		18.00		24.00	24	14.00
		MEAN		69,939	108,604	135,636	255.77	35.52	58.18	0.227	30.83	0.121	145		5.35		43.61		9.59	85	50.96
		MINIMUM		55,840	88,825	118,400	220.64	30.64	49.36	0.220	18.07	0.073	136		3.42		36.00		8.25	64	45.00
		MAXIMUM		80,607	123,887	149,000	283.10	39.32	63.66	0.232	49.14	0.181	160		7.17		56.00		11.28	115	60.00
		STD DEVIATION		6,704	10,145	7,541	17.29	2.40	3.50	0.003	7.39	0.030	7		1.07		6.20		0.90	15	5.25
		95% CL OF RUNS		83,347	128,894	150,718	290.35	40.33	65.18	0.234	45.60	0.180	159		7.48		56.01		11.38	115	61.46
		GEOMETRIC MEAN		69,427	107,706	134,672	254.31	35.32	57.95	0.227	30.06	0.118	145		5.23		44.45		9.46	82	50.72

**TABLE A-1. Individual Runs - Emissions Tests Performed on Bagasse Boilers in Florida
Sugar Cane Growers Cooperative of Florida, Belle Glade**

Unit	Run Number	Boiler Type	Test Date	Stack Gas Flow Rate	Stack Gas Flow Rate	Steam Rate	Total Heat Input Rate	Bagasse Burning Rate ¹	Allowable PM Emissions (EPA Method 5)		Actual PM Emissions ² (EPA Method 5)		Total Water Flow (gpm)		Avg. Pressure Drop (in. H ₂ O)		Water Level %		Oxygen	Excess Air	Avg. Liquid Pressure
				(dscfm)	(acfm)	(lb/hr)	(MMBtu/hr)	(TPH)	lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	N	S	N	S	N	S	(%, dry)	(%)	(PSI)
Boiler 3	1	Water-Cooled Pinhole	01/18/01	78,325	119,611	100,000	190.30	26.43	45.69	0.240	37.52	0.197	133		6.00				10.74	108	50-52
Boiler 3	2	Water-Cooled Pinhole	01/18/01	77,687	118,109	100,385	190.50	26.46	45.73	0.240	34.40	0.181	133		6.25				11.05	113	
Boiler 3	3	Water-Cooled Pinhole	01/18/01	82,884	124,632	104,143	197.60	27.44	47.28	0.239	35.63	0.180	139		6.60				10.76	104	
Boiler 3	1	Water-Cooled Pinhole	11/20/01	78,372	121,296	99,333	187.88	26.09	45.47	0.242	19.91	0.106	143		8.00		79		11.02	110	
Boiler 3	2	Water-Cooled Pinhole	11/20/01	82,637	128,859	100,000	189.82	26.36	46.28	0.244	22.09	0.116	142		8.00		79		10.75	105	
Boiler 3	3	Water-Cooled Pinhole	11/20/01	75,677	119,119	101,471	192.07	26.68	46.03	0.240	22.67	0.118	143		8.00		79		10.42	99	
Boiler 3	1	Water-Cooled Pinhole	12/02/02	73,986	114,127	112,059	211.36	29.36	47.96	0.227	25.03	0.118	144		6.06		66		10.07	110	55
Boiler 3	2	Water-Cooled Pinhole	12/02/02	74,798	115,086	108,000	203.90	28.32	47.33	0.232	26.02	0.128	146		6.28				9.46	81	55
Boiler 3	3	Water-Cooled Pinhole	12/02/02	76,528	115,724	102,985	194.15	26.97	44.79	0.231	24.69	0.127	146		6.14				11.16	90	55
Boiler 3	1	Water-Cooled Pinhole	01/13/04	74,779	110,495	104,211	195.85	27.20	46.72	0.239	20.94	0.107	140		5.35		64		12.12	137	
Boiler 3	2	Water-Cooled Pinhole	01/13/04	70,253	105,099	105,672	198.53	27.57	47.38	0.239	24.42	0.123	138		5.38		63		11.87	130	
Boiler 3	3	Water-Cooled Pinhole	01/13/04	65,493	97,640	104,545	196.27	27.26	46.65	0.238	21.52	0.110	140		5.30		65		12.13	137	
Boiler 3	1	Water-Cooled Pinhole	01/21/05	62,783	62,783	106,452	202.90	28.18	48.50	0.239	19.46	0.096	137		5.10		54				
Boiler 3	2	Water-Cooled Pinhole	01/21/05	65,828	65,828	105,000	199.50	27.71	47.10	0.236	16.97	0.085	138		4.92		49				
Boiler 3	3	Water-Cooled Pinhole	01/21/05	62,783	63,766	107,000	203.50	28.26	48.00	0.236	18.15	0.089	137		4.30		39				
Boiler 3	1	Water-Cooled Pinhole	01/18/06	33,302	52,328	108,000	200.20	27.81			10.63	0.053	129		5.36		46		10.77	105	45
Boiler 3	2	Water-Cooled Pinhole	01/18/06	33,675	52,744	108,000	200.10	27.79			10.69	0.053	129		5.30		46		10.69	103	45
Boiler 3	3	Water-Cooled Pinhole	01/18/06	35,609	56,260	108,000	200.50	27.85			12.44	0.062	126		5.24		46		10.78	105	45
Boiler 3	1	Water-Cooled Pinhole	12/07/06	70,900	108,279	96,923	179.00	24.86	41.60	0.232	21.82	0.122	134		4.50		44		10.42	98	51
Boiler 3	2	Water-Cooled Pinhole	12/07/06	69,894	107,118	96,857	178.10	24.74	40.83	0.229	23.31	0.131	134		4.60		43		10.42	98	51
Boiler 3	3	Water-Cooled Pinhole	12/07/06	71,647	109,522	97,500	180.00	25.00	41.62	0.231	27.05	0.150	132		4.70		44		10.23	94	51
Boiler 3	1	Water-Cooled Pinhole	12/19/07	53,156	83,489	101,667	188.87	26.23	43.52	0.230	26.63	0.141	141		5.62		33		8.53	68	48
Boiler 3	2	Water-Cooled Pinhole	12/19/07	55,739	89,275	99,740	184.60	25.64	43.10	0.233	25.04	0.136	141		5.52		33		8.58	69	48
Boiler 3	3	Water-Cooled Pinhole	12/19/07	55,293	87,147	100,000	184.46	25.62	43.30	0.235	18.71	0.101	142		5.88		33		9.10	76	48
Boiler 3	1	Water-Cooled Pinhole	01/13/09	56,832	88,634	106,479	198.26	27.54	44.05	0.222	41.99	0.212	129		6.20		44		8.89	73	60
Boiler 3	2	Water-Cooled Pinhole	01/13/09	57,500	88,306	107,561	200.14	27.80	44.95	0.225	22.19	0.111	129		6.48		45		8.97	73	60
Boiler 3	3	Water-Cooled Pinhole	01/13/09	57,484	90,796	107,500	200.11	27.79	44.95	0.225	26.04	0.130	129		6.44		45		8.72	73	60
Boiler 3	4	Water-Cooled Pinhole	01/13/09	55,033	88,844	104,800	194.91	27.07	43.72	0.224	24.91	0.128	129		6.54		45		8.75	73	60
Boiler 3	1	Water-Cooled Pinhole	12/22/09	53,452	80,783	102,500	186.90	25.96	42.38	0.227	24.80	0.133	144		4.60		40		9.39	79	
Boiler 3	2	Water-Cooled Pinhole	12/22/09	52,975	83,268	105,882	193.20	26.83	43.90	0.227	25.98	0.134	144		4.60		41		9.16	76	
Boiler 3	3	Water-Cooled Pinhole	12/22/09	52,051	81,483	102,000	186.80	25.94	43.14	0.231	21.06	0.113	144		4.60		41		9.15	75	
		Number of Runs		31	31	31	31	31	28	28	31	31	31		31		26		28	28	16
		MEAN		63,463	94,531	103,699	193.88	26.93	45.07	0.233	23.64	0.122	137		5.74		50.22		10.15	95	52.27
		MINIMUM		33,302	52,328	96,857	178.10	24.74	40.83	0.222	10.63	0.053	126		4.30		33.00		8.53	68	45.00
		MAXIMUM		82,884	128,859	112,059	211.36	29.36	48.50	0.244	41.99	0.212	146		8.00		79.00		12.13	137	60.00
		STD DEVIATION		13,699	22,638	3,847	8.00	1.11	2.14	0.006	6.96	0.037	6		1.02		14.03		1.09	20	5.67
		95% CL OF RUNS		90,862	139,807	111,393	209.88	29.15	49.35	0.246	37.56	0.195	150		7.77		78.28		12.32	136	63.60
		GEOMETRIC MEAN		61,795	91,606	103,630	193.72	26.91	45.02	0.233	22.61	0.117	137		5.66		48.53		10.09	93	51.98

**TABLE A-1. Individual Runs - Emissions Tests Performed on Bagasse Boilers in Florida
Sugar Cane Growers Cooperative of Florida, Belle Glade**

Unit	Run Number	Boiler Type	Test Date	Stack Gas Flow Rate	Stack Gas Flow Rate	Steam Rate	Total Heat Input Rate	Bagasse Burning Rate ¹	Allowable PM Emissions (EPA Method 5)		Actual PM Emissions ² (EPA Method 5)		Total Water Flow (gpm)		Avg. Pressure Drop (in. H ₂ O)		Water Level %		Oxygen	Excess Air	Avg. Liquid Pressure	
				(dscfm)	(acfm)	(lb/hr)	(MMBtu/hr)	(TPH)	lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	N	S	N	S	N	S	(%, dry)	(%)	(PSI)	
Boiler 4	1	Traveling Grate	11/24/99	140,315	233,483	270,789	521.84	72.48	96.33	0.185	75.91	0.145	280		4.00	4.00	80		6.71	47		
Boiler 4	2	Traveling Grate	11/24/99	135,887	226,214	256,667	494.99	68.75	94.25	0.190	75.24	0.152	568		4.00	6.00	80		7.26	53		
Boiler 4	3	Traveling Grate	11/24/99	137,998	235,855	259,091	500.80	69.56	95.48	0.191	94.39	0.188	568		6.00	5.00	79		10.50	48		
Boiler 4	1	Traveling Grate	11/21/01	140,709	231,210	250,588	483.73	67.18	89.86	0.186	54.54	0.113	654		11.00	8.00	58	59	7.46	55		
Boiler 4	2	Traveling Grate	11/21/01	139,232	228,126	265,000	483.23	67.12	90.10	0.186	52.86	0.109	326		9.00	8.00	60	50	7.66	58		
Boiler 4	3	Traveling Grate	11/21/01	141,229	233,393	251,642	486.63	67.59	91.01	0.187	53.62	0.110	326		9.00	8.00	55	52	7.80	59		
Boiler 4	1	Traveling Grate	11/25/02	135,836	221,775	261,739	502.97	69.86	98.15	0.195	40.84	0.081	701	5	6.26	5.38			7.55	55	55	
Boiler 4	2	Traveling Grate	11/25/02	130,169	216,432	265,217	511.05	70.98	99.69	0.195	38.74	0.076	698		6.24	5.46			7.11	50	55	
Boiler 4	3	Traveling Grate	11/25/02	121,508	203,813	265,075	510.97	70.97	99.82	0.195	47.39	0.093	699		5.84	5.44			6.81	47	55	
Boiler 4	1	Traveling Grate	01/14/04	163,039	266,783	272,113	512.93	71.24	95.46	0.186	58.60	0.114	660	5	6.40	7.52	62	60	7.57	56	55	
Boiler 4	2	Traveling Grate	01/14/04	156,974	263,642	271,538	514.05	71.40	96.96	0.189	67.10	0.131	653	5	6.50	7.58	62	61	7.54	56	55	
Boiler 4	3	Traveling Grate	01/14/04	155,072	258,904	274,521	520.43	72.28	98.25	0.189	66.16	0.127	656	5	6.34	7.18	62	62	7.34	54	55	
Boiler 4	1	Traveling Grate	01/13/05	126,038	203,525	265,000	509.40	70.75	96.30	0.189	51.12	0.100	634		6.30	6.10	108	64				
Boiler 4	2	Traveling Grate	01/13/05	117,857	202,508	265,000	508.70	70.65	96.20	0.189	52.39	0.103	310		5.90	5.80	66	64				
Boiler 4	3	Traveling Grate	01/13/05	130,959	224,758	270,000	518.30	71.99	98.10	0.189	56.03	0.108	310		6.20	6.40	66	64				
Boiler 4	1	Traveling Grate	12/07/05	101,811	169,590	262,418	509.94	70.83	96.62	0.189	45.29	0.089	318		6.20	5.60	66	65	7.31	54	45	
Boiler 4	2	Traveling Grate	12/07/05	101,639	174,861	268,636	521.10	72.38	99.22	0.190	31.92	0.061	318		6.30	5.60	66	65	10.06	98	45	
Boiler 4	3	Traveling Grate	12/08/05	120,939	199,867	263,514	511.18	71.00	96.97	0.190	34.39	0.067	316		8.10	6.70	69	65	7.26	51	45	
Boiler 4	1	Traveling Grate	01/05/07	128,249	217,492	260,000	504.20	70.03	94.56		51.81	0.103	331		6.52	5.88	32	64	7.63	57	51	
Boiler 4	2	Traveling Grate	01/05/07	134,040	228,265	262,000	501.40	69.64	94.22		58.83	0.117	330		6.78	5.92	32	64	7.45	55	51	
Boiler 4	3	Traveling Grate	01/05/07	131,102	217,492	266,000	490.90	68.18	91.46		62.40	0.127	329		6.48	5.98	32	64	7.71	58	51	
Boiler 4	1	Traveling Grate	12/04/07	111,706	202,269	261,000	505.70	70.24	94.87		70.84	0.140	338		7.20	7.50	33	51	5.70	37		
Boiler 4	2	Traveling Grate	12/04/07	114,335	206,945	275,000	531.00	73.75	100.14		53.85	0.101	338		7.60	6.70	35	49	4.85	30		
Boiler 4	3	Traveling Grate	12/04/07	112,448	202,269	263,000	507.50	70.49	94.79		54.82	0.108	338		6.40	5.30	35	49	4.66	28		
Boiler 4	1	Traveling Grate	12/09/08	119,890	208,055	279,000	536.40	74.50	101.01		53.10	0.099	294		9.20	6.90	31	48	7.34	53		
Boiler 4	2	Traveling Grate	12/09/08	119,074	207,666	286,000	550.90	76.51	104.12		56.48	0.103	294		8.10	6.10	30	48	7.10	51		
Boiler 4	3	Traveling Grate	12/09/08	129,646	208,055	290,000	552.50	76.74	103.77		60.24	0.109	294		8.10	6.80	29	49	7.21	52		
Boiler 4	1	Traveling Grate	12/08/09	123,443	215,178	264,000	507.10	70.43	95.15		46.75	0.092	320		4.60	4.80	24	34	7.79	59		
Boiler 4	2	Traveling Grate	12/08/09	125,398	213,497	265,000	509.00	70.69	95.75		51.90	0.102	320		4.80	5.10	24	34	7.40	54		
Boiler 4	3	Traveling Grate	12/08/09	119,828	215,178	274,000	527.40	73.25	98.76		45.03	0.085	320		5.00	5.20	24	34	6.57	45		
		Number of Runs		30	30	30	30	30	30	18	30	30	30		30	30	27	24	27	27	12	
		MEAN		128,879	217,903	265,952	511.54	71.05	96.58	0.189	55.42	0.108	428		6.68	6.20	51.81	54.96	7.31	53	52	
		MINIMUM		101,639	169,590	250,000	483.23	67.12	89.86	0.185	31.92	0.061	280		4.00	4.00	24.00	34.00	4.66	28	45	
		MAXIMUM		163,039	266,783	290,000	552.50	76.74	104.12	0.195	94.39	0.188	701		11.00	8.00	108.00	65.00	10.50	98	55	
		STD DEVIATION		14,611	21,645	9,364	16.75	2.33	3.48	0.003	12.90	0.026	162		1.57	1.04	22.24	10.41	1.17	12	4	
		95% CL OF RUNS		158,100	261,192	284,679	545.05	75.70	103.54	0.196	81.21	0.160	752		9.81	8.29	96.28	75.77	9.65	77	60	
		GEOMETRIC MEAN		128,087	216,867	265,794	511.28	71.01	96.52	0.189	54.03	0.106	402		6.51	6.11	47.20	53.87	7.22	51	51	

**TABLE A-1. Individual Runs - Emissions Tests Performed on Bagasse Boilers in Florida
Sugar Cane Growers Cooperative of Florida, Belle Glade**

Unit	Run Number	Boiler Type	Test Date	Stack Gas Flow Rate	Stack Gas Flow Rate	Steam Rate	Total Heat Input Rate	Bagasse Burning Rate ¹	Allowable PM Emissions (EPA Method 5)		Actual PM Emissions ² (EPA Method 5)		Total Water Flow (gpm)		Avg. Pressure Drop (in. H ₂ O)		Water Level %		Oxygen	Excess Air	Avg. Liquid Pressure	
				(dscfm)	(acfm)	(lb/hr)	(MMBtu/hr)	(TPH)	lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	N	S	N	S	N	S	(%, dry)	(%)	(PSI)	
Boiler 5	1	Traveling Grate ⁴	01/12/05	109,098	177,189	191,000	372.90	51.79	88.21	0.237	63.09	0.169	530		5.10	6.00	53	52				
Boiler 5	2	Traveling Grate ⁴	01/12/05	109,727	179,165	201,000	391.10	54.32	91.80	0.235	51.72	0.132	270		5.00	5.80	53	52				
Boiler 5	3	Traveling Grate ⁴	01/12/05	108,289	178,457	206,000	400.50	55.63	94.26	0.235	59.22	0.148	270		6.20	4.00	53	52				
Boiler 5	1	Traveling Grate ⁴	12/09/05	114,313	177,618	177,568	347.28	48.23	83.52	0.241	27.05	0.078	330		9.10	7.50	55	57	10.14	92	45	
Boiler 5	2	Traveling Grate ⁴	12/09/05	114,812	179,184	184,225	359.87	49.98	86.07	0.239	19.91	0.055	330		9.10	6.90	55	57	9.95	83	45	
Boiler 5	3	Traveling Grate ⁴	12/09/05	116,552	180,445	184,167	360.19	50.03	86.11	0.239	19.76	0.055	330		9.00	8.10	55	57	9.97	84	45	
Boiler 5	1	Traveling Grate ⁴	01/09/07	108,149	167,923	182,000	354.40	49.22	68.78		21.74	0.061	320		5.64	5.84	46	50	10.80	105	51	
Boiler 5	2	Traveling Grate ⁴	01/09/07	105,550	164,818	192,000	372.80	51.78	72.20		35.85	0.096	318		5.76	5.82	48	50	10.41	98	51	
Boiler 5	3	Traveling Grate ⁴	01/09/07	106,209	167,923	177,000	341.60	47.44	66.03		23.96	0.070	318		5.76	5.90	48	50	10.60	101	51	
Boiler 5	1	Traveling Grate ⁴	12/06/07	99,772	162,742	190,000	369.30	51.29	71.76		33.91	0.092	274		5.30	6.10	39	56	9.38	80		
Boiler 5	2	Traveling Grate ⁴	12/06/07	95,485	167,285	192,000	374.90	52.07	72.63		32.11	0.086	274		5.70	6.60	40	56	8.31	65		
Boiler 5	3	Traveling Grate ⁴	12/06/07	100,535	162,742	179,000	348.80	48.44	67.46		33.79	0.097	272		5.20	6.20	40	52	9.66	85		
Boiler 5	1	Traveling Grate ⁴	12/11/08	83,091	137,485	183,000	358.30	49.76	69.56		28.65	0.080	302		9.80	9.30	65	39	8.15	63		
Boiler 5	2	Traveling Grate ⁴	12/11/08	80,369	136,114	186,000	364.50	50.63	70.54		29.09	0.080	302		9.80	9.30	60	40	7.55	56		
Boiler 5	3	Traveling Grate ⁴	12/11/08	80,974	137,485	187,000	366.60	50.92	71.02		35.44	0.097	306		9.90	9.20	65	35	8.22	64		
Boiler 5	1	Traveling Grate ⁴	12/10/09	87,746	132,107	182,000	354.10	49.18	68.73		28.92	0.082	324		6.50	6.90	40	24	10.00	90		
Boiler 5	2	Traveling Grate ⁴	12/10/09	83,316	136,638	184,000	356.80	49.56	69.00		24.68	0.069	328		6.40	6.70	43	43	10.00	90		
Boiler 5	3	Traveling Grate ⁴	12/10/09	83,120	136,742	186,000	360.60	50.08	69.83		27.01	0.075	340		7.00	6.90	40	40	10.00	90		
		Number of Runs		18	18	18	18	18	18	6	18	18	18		18	18	18	18	15	15	6	
		MEAN		99,284	160,115	186,887	364.14	50.58	75.97	0.238	33.11	0.090	319		7.01	6.84	49.93	47.89	9.54	83	48	
		MINIMUM		80,369	132,107	177,000	341.60	47.44	66.03	0.235	19.76	0.055	270		5.00	4.00	39.00	24.00	7.55	56	45	
		MAXIMUM		116,552	180,445	206,000	400.50	55.63	94.26	0.241	63.09	0.169	530		9.90	9.30	65.00	57.00	10.80	105	51	
		STD DEVIATION		12,921	18,416	7,583	14.77	2.05	9.38	0.002	12.62	0.031	58		1.86	1.40	8.55	9.16	1.00	15	3	
		95% CL OF RUNS		125,126	196,947	202,052	393.67	54.68	94.74	0.242	58.34	0.152	435		10.72	9.64	67.04	66.20	11.54	113	55	
		GEOMETRIC MEAN		98,462	159,075	186,745	363.86	50.54	75.46	0.238	31.24	0.086	315		6.80	6.70	49.25	46.88	9.49	82	48	

**TABLE A-1. Individual Runs - Emissions Tests Performed on Bagasse Boilers in Florida
Sugar Cane Growers Cooperative of Florida, Belle Glade**

Unit	Run Number	Boiler Type	Test Date	Stack Gas	Stack Gas	Steam	Total	Bagasse	Allowable		Actual		Total		Avg.		Water		Oxygen	Excess	Avg. Liquid	
				Flow Rate	Flow Rate	Rate	Heat Input	Burning	PM Emissions	PM Emissions	Water Flow	Water Flow	Pressure Drop	Pressure Drop	Level %	Level %	(%, dry)	Air				Pressure
				(dscfm)	(acfm)	(lb/hr)	(MMBtu/hr)	(TPH)	lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	N	S	N	S	N	S		(%)	(PSI)	
Boiler 8	1	Spreader Stoker	12/12/95	140,983	209,191	249,730	487.56	67.72	71.00	0.146	47.97	0.098	N/A	N/A	9.50	9.50			11.33	116		
Boiler 8	2	Spreader Stoker	12/12/95	141,860	212,044	246,400	481.15	66.83	70.12	0.146	46.57	0.097	N/A	N/A	9.50	9.50			11.32	116		
Boiler 8	3	Spreader Stoker	12/12/95	137,301	204,482	247,397	482.74	67.05	70.23	0.145	42.19	0.087	N/A	N/A	9.50	9.50			11.22	113		
Boiler 8	1	Spreader Stoker	12/06/96	96,506	161,719	258,696	500.10	69.46	73.17	0.150	61.63	0.123	110	110	10.00	10.00			6.00	39		
Boiler 8	2	Spreader Stoker	12/06/96	95,345	163,326	243,478	470.60	65.36	68.85	0.150	74.63	0.159	110	110	10.00	10.00			5.70	37		
Boiler 8	3	Spreader Stoker	12/06/96	93,710	159,818	246,000	476.20	66.14	69.79	0.150	69.39	0.146	110	110	10.00	10.00			6.50	45		
Boiler 8	1	Spreader Stoker	01/22/98	107,327	166,155	242,083	466.82	64.84	66.92	0.143	37.36	0.080	N/A	N/A	12.00	12.00			9.50	81		
Boiler 8	2	Spreader Stoker	01/22/98	106,138	163,010	243,600	470.02	65.28	67.86	0.144	35.81	0.076	150	150	12.00	12.00			9.30	78		
Boiler 8	3	Spreader Stoker	01/22/98	101,278	158,180	250,833	484.29	67.26	70.16	0.145	32.06	0.066	150	150	12.00	12.00			8.40	65		
Boiler 8	1	Spreader Stoker	12/04/98	112,054	174,162	243,971	469.04	65.14	67.85	0.145	53.66	0.114	198	198	11.50	10.50			8.87	72		
Boiler 8	2	Spreader Stoker	12/04/98	110,893	173,156	243,478	469.29	65.18	67.94	0.145	45.59	0.097	110	110	10.50	11.50			9.24	77		
Boiler 8	3	Spreader Stoker	12/04/98	112,672	180,564	255,652	494.06	68.62	71.85	0.145	56.26	0.114	112	112	10.50	11.50			8.46	66		
Boiler 8	1	Spreader Stoker	12/03/99	122,275	183,519	250,274	482.71	67.04	71.13	0.147	64.25	0.133	120	125	9.00	9.00	34	34	9.56	84		
Boiler 8	2	Spreader Stoker	12/03/99	120,377	183,991	270,411	521.01	72.36	76.76	0.147	73.01	0.140	121	122	9.00	9.00	35	34	8.90	74		
Boiler 8	3	Spreader Stoker	12/03/99	119,026	182,419	263,239	507.29	70.46	74.70	0.147	69.53	0.137	122	120	9.00	9.00	35	34	9.65	85		
Boiler 8	1	Spreader Stoker	12/01/00	135,906	215,041	255,211	498.56	69.24	73.47	0.147	72.03	0.144	N/A	N/A	10.50	10.50			8.63	68		
Boiler 8	2	Spreader Stoker	12/01/00	129,093	203,465	251,667	486.89	67.62	71.72	0.147	68.93	0.142	151	140	10.50	10.50			8.72	72		
Boiler 8	3	Spreader Stoker	12/01/00	136,287	214,157	253,913	489.81	68.03	72.20	0.147	69.97	0.143	152	141	9.20	9.50			8.86	74		
Boiler 8	1	Spreader Stoker	12/11/01	147,986	227,597	250,588	486.69	67.60	70.69	0.145	64.04	0.132	152	148	6.50	7.50	80	80	9.89	89		
Boiler 8	2	Spreader Stoker	12/11/01	144,769	226,040	258,529	501.41	69.64	73.08	0.146	66.28	0.132	152	148	9.00	9.00	80	80	9.45	82		
Boiler 8	3	Spreader Stoker	12/11/01	142,486	223,353	261,176	506.68	70.37	74.01	0.146	69.41	0.137	152	148	9.70	9.00	80	80	9.24	79		
Boiler 8	1	Spreader Stoker	12/12/01	134,997	214,250	255,882	495.90	68.88	72.42	0.146	64.68	0.130	151	148	10.00	10.00	80	80	9.13	77		
Boiler 8	2	Spreader Stoker	12/12/01	140,453	219,775	255,882	496.97	69.02	72.43	0.146	67.46	0.136	152	148	7.00	8.00	80	80	9.59	84		
Boiler 8	3	Spreader Stoker	12/12/01	144,001	223,147	257,273	499.25	69.34	73.09	0.146	73.39	0.147	152	148	9.50	9.50	80	80	9.47	82		
Boiler 8	1	Spreader Stoker	12/17/02	126,124	197,714	267,200	518.27	71.98	75.91	0.146	59.86	0.115	154	153	7.34	7.24			8.50	68	55	
Boiler 8	2	Spreader Stoker	12/17/02	121,702	190,781	269,600	523.56	72.72	76.76	0.147	48.54	0.093	153	153	7.35	6.97	70	66	8.55	69	55	
Boiler 8	3	Spreader Stoker	12/17/02	123,394	197,032	256,667	498.68	69.26	73.09	0.147	73.08	0.147	153	153	7.26	6.86	70	66	8.65	70	55	
Boiler 8	1	Spreader Stoker	02/13/04	114,062	184,796	249,429	484.50	67.29	70.80	0.146	62.46	0.129	164	169	8.12	8.12						
Boiler 8	2	Spreader Stoker	02/13/04	115,849	185,616	250,400	484.80	67.33	70.80	0.146	54.48	0.112	162	167	8.08	7.94						
Boiler 8	4	Spreader Stoker	02/13/04	117,153	186,729	250,154	483.40	67.14	70.60	0.146	33.04	0.068	163	166	7.90	7.80						
Boiler 8	1	Spreader Stoker	01/19/05	123,423	191,937	261,136	507.60	70.50	72.91	0.144	50.28	0.099	159	163	7.10	7.30	53	52				
Boiler 8	2	Spreader Stoker	01/19/05	115,669	185,579	268,000	519.60	72.17	74.80	0.144	42.40	0.082	159	162	7.00	6.90	53	52				
Boiler 8	3	Spreader Stoker	01/19/05	121,916	188,922	270,000	523.50	72.71	75.45	0.144	46.27	0.088	160	162	7.10	6.90	53	52				
Boiler 8	1	Spreader Stoker	01/20/06	101,378	161,441	270,000	513.60	71.33			39.03	0.076							6.77	47		
Boiler 8	2	Spreader Stoker	01/20/06	97,668	155,534	271,000	519.30	72.13			31.68	0.061							6.10	41		
Boiler 8	3	Spreader Stoker	01/20/06	101,378	161,441	267,000	509.10	70.71			37.93	0.075							6.38	43		
Boiler 8	1	Spreader Stoker	01/11/07	101,634	164,590	279,000	532.20	73.92	99.17		52.81	0.099	162	166	7.62	7.78	59	50	7.13	51	50	
Boiler 8	2	Spreader Stoker	01/11/07	105,031	170,731	275,000	526.30	73.10	98.06		57.88	0.110	162	166	7.60	7.82	59	50	7.00	50	50	
Boiler 8	3	Spreader Stoker	01/11/07	105,997	164,590	278,000	530.90	73.74	98.82		62.74	0.118	158	164	7.66	7.56	59	50	7.29	53	49	
Boiler 8	1	Spreader Stoker	12/10/07	134,976	213,653	270,000	519.30	72.13	96.58		53.72	0.103	160	162	7.80	6.20	52	44	9.65	84		
Boiler 8	2	Spreader Stoker	12/10/07	132,039	209,109	265,000	511.10	70.99	95.01		63.47	0.124	160	163	8.40	8.80	51	48	9.57	83		
Boiler 8	3	Spreader Stoker	12/10/07	131,690	213,653	260,000	499.60	69.39	92.55		64.24	0.129	160	164	8.50	10.00	50	47	9.53	82		
Boiler 8	1	Spreader Stoker	12/16/08	127,985	205,572	276,000	532.10	73.90	99.15		58.78	0.110	158	149	6.40	7.00	54	65	9.91	89		
Boiler 8	2	Spreader Stoker	12/16/08	124,586	201,481	270,000	520.10	72.24	96.83		62.47	0.120	156	148	6.50	8.20	54	66	9.42	81		
Boiler 8	3	Spreader Stoker	12/16/08	123,076	205,572	280,000	538.20	74.75	100.27		60.46	0.112	159	155	6.70	7.90	54	67	9.15	77		
Boiler 8	1	Spreader Stoker	12/28/09	134,267	200,488	278,000	535.30	74.35	99.78		55.04	0.103	165	154	6.70	5.60	53	73	11.09	111		
Boiler 8	2	Spreader Stoker	12/28/09	132,280	202,808	284,000	545.40	75.75	101.87		51.15	0.094	164	152	6.50	5.60	53	74	10.74	104		
Boiler 8	3	Spreader Stoker	12/28/09	132,664	201,467	275,000	528.30	73.38	98.30		41.29	0.078	165	154	6.60	5.60	53	74	10.82	105		
		Number of Runs		48	48	48	48	48	45	33	48	48	40	40	45	45	26	26	42	42	6	
		MEAN		121,660	191,329	260,332	502.70	69.82	78.87	0.146	56.03	0.112	150	148	8.67	8.72	58.98	60.72	8.89	75.25	52	
		MINIMUM		93,710	155,534	242,083	466.82	64.84	66.92	0.143	31.68	0.061	110	110	6.40	5.60	34.00	34.00	5.70	36.97	49	
		MAXIMUM		147,986	227,597	284,000	545.40	75.75	101.87	0.150	74.63	0.159	198	198	12.00	12.00	80.00	80.00	11.33	115.82	55	
		STD DEVIATION		15,144	21,358	11,688	21.06	2.93	11.96	0.002	12.47	0.025	20	20	1.64	1.74	14.38	15.74	1.47	20.68	3	
		95% CL OF RUNS		151,948	234,045	283,709	544.82	75.67	102.78	0.149	80.97	0.163	189	188	11.96	12.20	87.74	92.21	11.83	116.62	58	
		GEOMETRIC MEAN		120,713	190,144	260,077	502.27	69.76	78.05	0.146	54.52	0.108	148	147	8.52	8.55	57.25	58.58	8.76	72.26	52	

Notes:

- lb/hr = pounds per hour.
- lb/MMBtu = pounds per million British thermal units.
- lb/ton = pounds per ton.
- MMBtu/hr = million British thermal units per hour.
- TPH = tons per hour.
- N/A = Not Available

Footnotes:

- ¹ Assumed 3,600 Btu/lb average heat content for wet bagasse, except where noted.
- ² Based on actual reported data.
- ³ In 2004, the two scrubbers on Boiler No. 2 were replaced with one new scrubber. Therefore, only the data since 2005 is representative of current operations.
- ⁴ In 2004, the scrubbers on Boiler No. 5 were replaced with two new scrubbers. Only the data since 2005 is representative of current operations.
- ⁵ Only one flow reported for the two scrubbers, so value assumed to represent flow to each scrubber (i.e., single value reported in stack tests multiplied by two to obtain the total flow to both scrubbers).
- ⁶ Only one flow reported for the two scrubbers, so the single reported scrubber value assumed to equal the flow to each scrubber.