Golder Associates Inc.

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April 25, 2007

063-7602

RECEIVED
APR 27 2007
BUREAU OF AIR REGULATION

Florida Department of Environmental Protection
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Attention: Mr. Jeff Koerner, Air Permitting South

RE: UNITED STATES SUGAR CORPORATION
CLEWISTON MILL (FACILITY NO. 0510003)
TITLE V RENEWAL APPLICATION

Dear Mr. Jeff Koerner:

As per your letter dated March 30, 2007, please find enclosed four copies of the updated application pages for inclusion in the Title V air permit renewal for the Clewiston Mill. The revised application pages are being submitted to incorporate the following air construction permits and revisions into the Title V renewal permit:

- Increased capacity of Clewiston Boiler No. 8 (Permit No. 0510003-037-AC).
- Modified New White Sugar Dryer No. 2 (Permit No. 0510003-038-AC).
- Revised Compliance Assurance Monitoring (CAM) Plan parameters, tables, and graphs based on 2006 stack testing results for Boiler Nos. 1, 2, and 7. Revised parameters for Boiler No. 4 were addressed in the control equipment parameter modification application that is currently being submitted to the Florida Department of Environmental Protection (FDEP).

The modified oil firing requirements for Boiler Nos. 1, 2, and 4 in Permit No. 0510003-039-AC were addressed in the Title V request for additional information (RAI) response submitted to FDEP in September 2006. However, a typographical error was discovered in the page for the NO_x emissions for Boiler No. 4. Therefore, revised pages are attached.

If you have any questions, please do not hesitate to call me at (352) 336-5600.

Sincerely,

GOLDER ASSOCIATES INC.

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

E. Claire Booth, E.I.
Staff Engineer

cc: Mr. Don Griffin, USSC
Mr. Peter Briggs, USSC
Mr. Ron Blackburn, FDEP SD Office
Mr. James Stormer, Palm Beach County Health Department

Enclosures

DB/CB/all

Y:\Projects\2006\0637602 US Sugar\Title V Revision\FINAL042507\L042507-602.doc

FACILITY INFORMATION

RECEIVED
APR 27 2007
BUREAU OF AIR REGULATION

Application Responsible Official Certification

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

1. Application Responsible Official Name:
   Neil Smith, Vice President and General Manager, Sugar Manufacturing
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):
   - ☒ 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.
   - ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
   - ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
   - ☐ The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address...
   Organization/Firm: **United States Sugar Corporation**
   Street Address: **111 Ponce de Leon Ave.**
   City: **Clewiston** State: **FL** Zip Code: **33440**
4. Application Responsible Official Telephone Numbers...
   Telephone: **(863) 902-2703** ext. Fax: **(863) 902-2729**
5. Application Responsible Official Email Address: **nsmith@ussugar.com**
6. Application Responsible Official Certification:

   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.

   Signature _____ Date 4/19/07

FACILITY 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: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 336-5600** ext.**545** Fax: **(352) 336-6603**
4. Professional Engineer Email Address: **dbuff@golder.com**
5. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(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

(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.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, 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.

(4) If the purpose of this application is to obtain an air construction permit (check here ☐, 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 ☐, 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.

(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 ☒, 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.

David A. Buff — Signature

4/25/07 — Date

(seal)

* Attach any exception to certification statement.

** Board of Professional Engineers Certificate of Authorization #0000167

REVISED TITLE V APPLICATION PAGES

BOILER NO. 4

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **NO_x**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **126.6** lb/hour **288** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.20 lb/MMBtu** Reference: **Permit Nos. 0510003-017-AV and 0510003-018-AC.**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emission (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: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Bagasse: 633 MMBtu/hr x 0.20 lb/MMBtu = 126.6 lb/hr

Annual emissions based on heat input rate of 2,880,000 MMBtu during any consecutive 12 months.

2,880,000 MMBtu/yr x 0.20 lb/MMBtu x 1 ton/2,000 lb = 288.0 TPY

Fuel Oil:
326 MMBtu/hr x 0.20 lb/MMBtu = 65.2 lb/hr
834,000 MMBtu/yr x 0.20 lb/MMBtu x 1 ton/2,000 lb = 83.4 TPY

11. Pollutant Potential/Estimated Fugitive Emissions Comment:
Maximum emissions representative of bagasse firing only.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **126.6** lb/hour **288** tons/year
5. Method of Compliance: **EPA Method 7 or 7E**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-017-AV. Based on carbonaceous fuel firing and maximum heat input of 2,880,000 MMBtu during any consecutive 12 months.**	

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: **0.20 lb/MMBtu**	4. Equivalent Allowable Emissions: **65.2** lb/hour **83.4** tons/year
5. Method of Compliance: **EPA Method 7E**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-018-AC. Based on firing of No. 2 distillate fuel oil.**	

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):	

REVISED TITLE V APPLICATION PAGES

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 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 for air permit. 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 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/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. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** 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 construction permitting and insignificant emissions units 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.

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: **028**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**NOV 2003**	**MAR 2005**	**20**	☐ Yes ☒ No

9. Package Unit:
   Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

Membrane wall, balanced-draft stoker boiler fired with carbonaceous fuel and distillate fuel oil (Grade No. 2) with a maximum sulfur content of 0.05 percent by weight. Fuel oil can include facility generated, on-specification used oil.

EMISSIONS UNIT INFORMATION
Section [5]
Boiler No. 1

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Electrostatic Precipitator
Wet Sand Separator
Selective Non-Catalytic Reduction System (SNCR)
Dry Cyclone

2. Control Device or Method Code(s): **010, 099, 107, 075**

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: **633,000 lb/hr**	
3. Maximum Heat Input Rate: **1,185** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: **24** hours/day **52** weeks/year	**7** days/week **8,760** hours/year

6. Operating Capacity/Schedule Comment:

Maximum heat input based on 1-hour maximum steam rate (above) for carbonaceous fuel firing. Maximum 24-hour average firing for carbonaceous fuel is 1,077 MMBtu/hr, based on a 24-hour steam rate of 575,000 lb/hr. Maximum for No. 2 fuel oil is 562 MMBtu/hr. Maximum annual heat input limited to 6,767,100 MMBtu/yr.

See Attachments USSC-EU5-B6a and USSC-EU5-B6b.

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: **BLR-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: **199** feet	7. Exit Diameter: **10.9** feet
8. Exit Temperature: **255** °F	9. Actual Volumetric Flow Rate: **437,000** acfm	10. Water Vapor: **24** %
11. Maximum Dry Standard Flow Rate: **245,258** 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 are based on biomass firing at the maximum 24-hour heat input rate and the 2006 and 2007 stack test results. Maximum standard flow rates are at 7-percent oxygen.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type): **External combustion boilers; industrial; bagasse; all boiler sizes**		
2. Source Classification Code (SCC): **1-02-011-01**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **164.58**	5. Maximum Annual Rate: **939,875**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.1 (dry)**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **7.2**
10. Segment Comment: **Maximum hourly rate based on bagasse firing at 1,185 MMBtu/hr (1-hour max) and maximum annual rate based on 6,767,100 MMBtu/yr. See Attachment USSC-EU1-B6b.**		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): **External combustion boilers; industrial; distillate oil; grades 1 and 2**		
2. Source Classification Code (SCC): **1-02-005-01**	3. SCC Units: **1000 Gallons**	
4. Maximum Hourly Rate: **4.161**	5. Maximum Annual Rate: **6,073.6**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **135**
10. Segment Comment: **Maximum rates based on fuel oil firing at 562 MMBtu/hr and a maximum of 6,073,600 gallons of fuel oil per year.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type): **External combustion boilers; industrial; wood/bark (>50,000 lb/hr steam)**		
2. Source Classification Code (SCC): **1-02-009-02**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **131.67**	5. Maximum Annual Rate: **831,339**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05 (dry)**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **8.14**
10. Segment Comment: **Maximum hourly rate based on 1,185 MMBtu/hr (1-hour max) and 4,070 Btu/lb (wet) for wood/bark. Maximum annual rate based on 6,767,100 MMBtu/yr.**		

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:		

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	099	010	EL
PM_{10}	099	010	EL
SO_2			EL
NO_X	107		EL
CO			EL
VOC			EL
SAM			NS
PB	010		NS
H017 (Benzene)			NS
H095 (Formaldehyde)			NS
H106 (Hydrogen Chloride)	010		EL
H114 (Mercury)	010		EL
HAPs			NS
NH_3 (Ammonia)			EL

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **29.6** lb/hour **84.6** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.025 lb/MMBtu** Reference: **MACT Limit**	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: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Maximum 1-hour rate: 1,185 MMBtu/hr x 0.025 lb/MMBtu = 29.6 lb/hr
Maximum 24-hour rate: 1,077 MMBtu/hr x 0.025 lb/MMBtu = 26.9 lb/hr
Maximum annual rate: 6,767,100 MMBtu/yr x 0.025 lb/MMBtu ÷ 2,000 lb/ton = 84.6 TPY

11. Potential Fugitive and Actual Emissions Comment:

Potential emissions representative of bagasse firing. Based on Permit No. 0510003-037-AC/PSD-FL-333C and 40 CFR 63, Subpart DDDDD, Table 1.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.025 lb/MMBtu**	4. Equivalent Allowable Emissions: **29.6** lb/hour tons/year
5. Method of Compliance: **EPA Method 5**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-037-AC/PSD-FL-333C and MACT Limit, 40 CFR 63, Subpart DDDDD, Table 1. Hourly emissions based on maximum 1-hour heat input.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.025 lb/MMBtu**	4. Equivalent Allowable Emissions: **26.9** lb/hour tons/year
5. Method of Compliance: **EPA Method 5**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-037-AC/PSD-FL-333C and MACT Limit, 40 CFR 63, Subpart DDDDD, Table 1. Hourly emissions based on maximum 24-hour heat input.**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.025 lb/MMBtu**	4. Equivalent Allowable Emissions: lb/hour **84.6** tons/year
5. Method of Compliance: **EPA Method 5**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-037-AC/PSD-FL-333C and MACT Limit, 40 CFR 63, Subpart DDDDD, Table 1. Annual emissions based on 6,767,100 MMBtu/yr heat input.**	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:	
3. Potential Emissions: **29.6** lb/hour **84.6** tons/year		4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year		
6. Emission Factor: **0.025 lb/MMBtu** Reference: **Permit No. 0510003-037-AC/PSD-FL-333C**		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: ☐ 5 years ☐ 10 years	

10. Calculation of Emissions:

Maximum 1-hour rate: 1,185 MMBtu/hr x 0.025 lb/MMBtu = 29.63 lb/hr
Maximum 24-hour rate: 1,077 MMBtu/hr x 0.025 lb/MMBtu = 26.93 lb/hr
Maximum annual rate: 6,767,100 MMBtu/yr x 0.025 lb/MMBtu ÷ 2,000 lb/ton = 84.6 TPY

11. Potential Fugitive and Actual Emissions Comment:

Potential emissions representative of bagasse firing. Based on Permit No. 0510003-037-AC/PSD-FL-333C.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.025 lb/MMBtu**	4. Equivalent Allowable Emissions: **29.6** lb/hour tons/year
5. Method of Compliance: **EPA Method 5**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-037-AC/PSD-FL-333C and MACT Limit, 40 CFR 63, Subpart DDDDD, Table 1. Hourly emissions based on maximum 1-hour heat input.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.025 lb/MMBtu**	4. Equivalent Allowable Emissions: **26.9** lb/hour tons/year
5. Method of Compliance: **EPA Method 5**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-037-AC/PSD-FL-333C and MACT Limit, 40 CFR 63, Subpart DDDDD, Table 1. Hourly emissions based on maximum 24-hour heat input.**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.025 lb/MMBtu**	4. Equivalent Allowable Emissions: lb/hour **84.6** tons/year
5. Method of Compliance: **EPA Method 5**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-037-AC/PSD-FL-333C and MACT Limit, 40 CFR 63, Subpart DDDDD, Table 1. Annual emissions based on 6,767,100 MMBtu/yr heat input.**	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **71.1** lb/hour **203.0** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.06 lb/MMBtu** Reference: **Permit No. 0510003-037-AC/PSD-FL-333C**	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: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Maximum 1-hour rate: 1,185 MMBtu/hr x 0.06 lb/MMBtu = 71.1 lb/hr
Maximum 24-hour rate: 1,077 MMBtu/hr x 0.06 lb/MMBtu = 64.6 lb/hr
Maximum annual rate: 6,767,100 MMBtu/yr x 0.06 lb/MMBtu ÷ 2,000 lb/ton = 203.0 TPY

11. Potential Fugitive and Actual Emissions Comment:

Potential emissions based on bagasse firing. Based on Permit No. 0510003-037-AC/PSD-FL-333C.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.06 lb/MMBtu**	4. Equivalent Allowable Emissions: **71.1** lb/hour tons/year
5. Method of Compliance: **EPA Method 6C**	
6. Allowable Emissions Comment (Description of Operating Method): **Emissions representative of bagasse firing only. Hourly emissions based on the maximum 1-hour heat input. Permit No. 0510003-037-AC/PSD-FL-333C.**	

Allowable Emissions Allowable Emissions 2 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.06 lb/MMBtu**	4. Equivalent Allowable Emissions: **64.6** lb/hour tons/year
5. Method of Compliance: **EPA Method 6C**	
6. Allowable Emissions Comment (Description of Operating Method): **Emissions representative of bagasse firing only. Hourly emissions based on the maximum 24-hour heat input. Permit No. 0510003-037-AC/PSD-FL-333C.**	

Allowable Emissions Allowable Emissions 3 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.06 lb/MMBtu**	4. Equivalent Allowable Emissions: lb/hour **203.0** tons/year
5. Method of Compliance: **EPA Method 6C**	
6. Allowable Emissions Comment (Description of Operating Method): **Emissions representative of bagasse firing only. Annual emissions based on 6,767,100 MMBtu/yr heat input. Permit No. 0510003-037-AC/PSD-FL-333C.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions **4** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.05 lb/MMBtu**	4. Equivalent Allowable Emissions: **28.1** lb/hour **20.5** tons/year
5. Method of Compliance: **Fuel Analysis**	
6. Allowable Emissions Comment (Description of Operating Method): **Emissions representative of No. 2 fuel oil firing with 0.05 percent sulfur. Annual emissions based on limit of 6,073,600 gal/yr. Permit No. 0510003-037-AC/PSD-FL-333C.**	

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):	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **NO_x**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **355.5** lb/hour **473.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.14 lb/MMBtu, 30-day rolling average** Reference: **Permit No. 0510003-037-AC/PSD-FL-333C**	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: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Maximum 1-hour rate: 1,185 MMBtu/hr x 0.30 lb/MMBtu = 355.5 lb/hr
Maximum 24-hour rate: 1,077 MMBtu/hr x 0.30 lb/MMBtu = 323.1 lb/hr
Maximum annual rate: 6,767,100 MMBtu/yr x 0.14 lb/MMBtu ÷ 2,000 lb/ton = 473.7 TPY

11. Potential Fugitive and Actual Emissions Comment:

Maximum 1-hour and 24-hour rates represent worst-case uncontrolled emissions without the SNCR system. Annual average is 30-day rolling average limit, based on Permit No. 0510003-037-AC/PSD-FL-333C.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **0.14 lb/MMBtu**	4. Equivalent Allowable Emissions: lb/hour **473.7** tons/year
5. Method of Compliance: **NO_x CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual limit based on 30-day rolling average. Permit No. 0510003-037-AC/PSD-FL-333C.**	

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):	

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

(Optional for unregulated emissions units.).

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **7,702.5** lb/hour **1,285** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **400 ppmvd @ 7% O_2, 30-day rolling average** Reference: **MACT Limit**	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: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Maximum 1-hour rate: 1,185 MMBtu/hr x 6.5 lb/MMBtu = 7,702.5 lb/hr
Maximum 24-hour rate: 1,077 MMBtu/hr x 6.5 lb/MMBtu = 7,000.5 lb/hr

30-day rolling average based on 40 CFR 63, Subpart DDDDD:
400 ppmvd @ 7% O_2 x 245,258 dscfm @ 7% O_2 x 60 min/hr x 2,116.8 lb_f/ft^2 ÷ (1,545.6/28) ft-lb_f/lb_m-°R ÷ 528°R = 427.5 lb/hr

Annual based on 30-day rolling average:
427.5 lb/hr x 8,760 hr/yr ÷ 2,000 lb/ton = 1,872.4 TPY

11. Potential Fugitive and Actual Emissions Comment:

Annual limit based on 12-month rolling total from Permit No. 0510003-037-AC/PSD-FL-333C.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **400 ppmvd @ 7% O_2**	4. Equivalent Allowable Emissions: **427.5** lb/hour **1,872.4** tons/year
5. Method of Compliance: **CO CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0510003-037-AC/PSD-FL-333C and MACT Limit, 40 CFR 63, Subpart DDDDD, Table 1. Limit based on 30-day rolling average. Limit excludes periods of startup, shutdown, and malfunction (SSM) as well as operating at less than 50% capacity.**	

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: **1,285 TPY**	4. Equivalent Allowable Emissions: lb/hour **1,285** tons/year
5. Method of Compliance: **CO CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Limit based on 12-month rolling total. Annual TPY includes periods of startup, shutdown, and malfunction (SSM).**	

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.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **59.25** lb/hour **169.2** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.05 lb/MMBtu** Reference: **Permit No. 0510003-037-AC/PSD-FL-333C**	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: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Maximum 1-hour rate: 1,185 MMBtu/hr x 0.05 lb/MMBtu = 59.25 lb/hr
Maximum 24-hour rate: 1,077 MMBtu/hr x 0.05 lb/MMBtu = 53.85 lb/hr
Maximum annual rate: 6,767,100 MMBtu/yr x 0.05 lb/MMBtu ÷ 2,000 lb/ton = 169.2 TPY

11. Potential Fugitive and Actual Emissions Comment:

Potential emissions representative of bagasse firing. Based on Permit No. 0510003-037-AC/PSD-FL-333C.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **0.05 lb/MMBtu**	4. Equivalent Allowable Emissions: **59.25** lb/hour **169.2** tons/year
5. Method of Compliance: **EPA Methods 18 and 25A**	
6. Allowable Emissions Comment (Description of Operating Method): **Emissions representative of bagasse firing 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):	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **H114 (Mercury)**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.0036** lb/hour **0.0102** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **3x10^{-6} lb/MMBtu** Reference: **MACT Limit**	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: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Maximum 1-hour rate: 1,185 MMBtu/hr x 3x10^{-6} lb/MMBtu = 0.0036 lb/hr
Maximum 24-hour rate: 1,077 MMBtu/hr x 3x10^{-6} lb/MMBtu = 0.0032 lb/hr
Maximum annual rate: 6,767,100 MMBtu/yr x 3x10^{-6} lb/MMBtu ÷ 2,000 lb/ton = 0.0102 TPY

11. Potential Fugitive and Actual Emissions Comment:

Potential emissions representative of bagasse firing. Based on Permit No. 0510003-037-AC/PSD-FL-333C and 40 CFR 63, Subpart DDDDD, Table 1.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **$3x10^{-6}$ lb/MMBtu**	4. Equivalent Allowable Emissions: **0.0036** lb/hour **0.0102** tons/year
5. Method of Compliance: **Bagasse analysis**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0510003-037-AC/PSD-FL-333C and 40 CFR 63, Subpart DDDDD, Table 1.**	

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):	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **HCl**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **23.7** lb/hour **67.67** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.02 lb/MMBtu** Reference: **MACT Limit**	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: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Maximum 1-hour rate: 1,185 MMBtu/hr x 0.02 lb/MMBtu = 23.7 lb/hr
Maximum 24-hour rate: 1,077 MMBtu/hr x 0.02 lb/MMBtu = 21.54 lb/hr
Maximum annual rate: 6,767,100 MMBtu/yr x 0.02 lb/MMBtu ÷ 2,000 lb/ton = 67.67 TPY

11. Potential Fugitive and Actual Emissions Comment:

Potential emissions representative of bagasse firing. Based on Permit No. 0510003-037-AC/PSD-FL-333C and 40 CFR 63, Subpart DDDDD, Table 1.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.02 lb/MMBtu**	4. Equivalent Allowable Emissions: **23.7** lb/hour **67.67** tons/year
5. Method of Compliance: **Annual stack testing using EPA Method 26A.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0510003-037-AC/PSD-FL-333C and 40 CFR 63, Subpart DDDDD, Table 1.**	

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):	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **NH_3**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **14.3** lb/hour **62.6** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **20 ppmvd @ 7% O_2** Reference: **Permit No. 0150003-037-AC/PSD-FL-333C**	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: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

20 ppmvd @ 7% O_2 x 270,000 dscfm @ 7% O_2 x 60 min/hr x 2,116.8 lb_f/ft^2 ÷ (1,545.6/17) ft-lb_f/lb_m-°R ÷ 528°R = 14.3 lb/hr

14.3 lb/hr x 8,760 hr/yr ÷ 2,000 lb/ton = 62.6 TPY

11. Potential Fugitive and Actual Emissions Comment:

Based on Permit No. 0510003-037-AC/PSD-FL-333C.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **20 ppmvd @ 7% O_2**	4. Equivalent Allowable Emissions: **14.3** lb/hour **62.6** tons/year
5. Method of Compliance: **Annual stack test by method EPA CTM-027.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0510003-037-AC/PSD-FL-333C.**	

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):	

G. VISIBLE EMISSIONS INFORMATION

Complete 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: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: **27** % Maximum Period of Excess Opacity Allowed: **6** min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment: **Permit No. 0510003-037-AC/PSD-FL-333C. Rule 62-212.400(5), F.A.C., BACT and NSPS Subpart Db.**	

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor **1** of **2**

1. Parameter Code: **EM**	2. Pollutant(s): **CO**
3. CMS Requirement: ☒ Rule ☐ Other	
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Based on 40 CFR 63, Subpart DDDDD and Permit No. 0510003-037-AC/PSD-FL-333C.**	

Continuous Monitoring System: Continuous Monitor **2** of **2**

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement: ☐ Rule ☒ Other	
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Based on BACT and Permit No. 0510003-037-AC/PSD-FL-333C.**	

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)
   ☐ Attached, Document ID: ____ ☒ Previously Submitted, Date **September 2006**

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)
   ☐ Attached, Document ID: ____ ☒ Previously Submitted, Date **September 2006**

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)
   ☐ Attached, Document ID: ____ ☒ Previously Submitted, Date **September 2006**

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)
   ☐ Attached, Document ID: ____ ☒ Previously Submitted, Date **September 2006**
   ☐ 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)
   ☐ Attached, Document ID: ____ ☐ Previously Submitted, Date ____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID: ____
   Test Date(s)/Pollutant(s) Tested: ____
   ☒ Previously Submitted, Date: **Jan. 2006; June 2006; Jan. 2007**
   Test Date(s)/Pollutant(s) Tested: ____
   ☐ To be Submitted, Date (if known): ____
   Test Date(s)/Pollutant(s) Tested: ____
   ☐ 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
   ☐ Attached, Document ID: ____ ☒ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))
   ☐ Attached, Document ID: _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.)
   ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☐ Attached, Document ID: _____ ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements
   ☒ Attached, Document ID: **USS-EU5-IV1** ☐ Not Applicable
2. Compliance Assurance Monitoring
   ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Alternative Methods of Operation
   ☒ Attached, Document ID: **USS-EU5-IV3** ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading)
   ☐ Attached, Document ID: _____ ☒ Not Applicable
5. Acid Rain Part Application
   ☐ Certificate of Representation (EPA Form No. 7610-1)
      ☐ Copy Attached, Document ID: _____
   ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☒ Not Applicable

Additional Requirements Comment

ATTACHMENT USSC-EU5-B6

OPERATING CAPACITY

ATTACHMENT USSC-EU5-B6a

BOILER LOAD DATA

1. Boiler No. 8 – Annual Steam Production Basis:

Based on 75 percent capacity factor for originally permitted 1-hour steam rate of 550,000 lb/hr.

550,000 lb/hr steam x 8,760 hr/yr x 0.75 = 3.6135 x 10^9 lb steam per year

2. Steam Enthalpy Calculation

A. Steam conditions: 600 psig, 750°F
= 615 psia, 750°F
Enthalpy = 1,379 Btu/lb

B. Feedwater condition: 800 psig, 250°F
= 815 psia, 250°F
Enthalpy = 218 Btu/lb

C. Net Enthalpy: 1,379 – 218 = 1,161 Btu/lb steam

3. Heat Input Calculation (based on 62 percent thermal efficiency)

A. Maximum 1-hour:
633,000 lb/hr steam x 1,161 Btu/lb ÷ 0.62 = 1,185 MMBtu/hr

B. Maximum 24-hour:
575,000 lb/hr steam x 1,161 Btu/lb ÷ 0.62 = 1,077 MMBtu/hr

C. Annual rate:
3.6135 x 10^9 lb steam/yr x 1,161 Btu/lb ÷ 0.62 = 6,767,100 MMBtu/yr

4. Furnace Data

Furnace Type = Membrane Wall
Furnace Volume = 50,520 ft^3
Heat Release Rate (Bagasse) = 1,185 MMBtu/hr ÷ 50,520 ft^3 = 23,456 Btu/ft^3-hr
Heat Release Rate (No. 2 Fuel Oil) = 562 MMBtu/hr ÷ 50,520 ft^3 = 11,124 Btu/ft^3-hr

ATTACHMENT USSC-EU5-B6b

BOILER NO. 8 MAXIMUM FUEL USAGE AND HEAT INPUT RATES, U.S. SUGAR CLEWISTON

Fuel	Heat Input	Heat Transfer Efficiency (%)	Fuel Firing Rate	
	Maximum Short-Term (MMBtu/hr)			
Bagasse (1-hour max) [a]	1,185	62	329,167	lb/hr
Bagasse (24-hour max) [b]	1,077	62	299,167	lb/hr
Wood Chips (1-hour max) [a]	1,185	62	291,155	lb/hr
Wood Chips (24-hour max) [b]	1,077	62	264,619	lb/hr
No. 2 Fuel Oil [c]	562	62	4,161	gal/hr
	Annual Average (MMBtu/yr)			
NORMAL OPERATION (100% BAGASSE)				
Bagasse	6,767,100	62	939,875	TPY
Wood Chips	0	62	0	TPY
No. 2 Fuel Oil	0	62	0	gal/yr
TOTAL	6,767,100			
100% WOOD CHIPS				
Bagasse	0	62	0	TPY
Wood Chips	6,767,100	62	831,339	TPY
No. 2 Fuel Oil	0	62	0	gal/yr
TOTAL	6,767,100			
10% FUEL OIL FIRING[d]				
Biomass	5,823,648	62	808,840	TPY
No. 2 Fuel Oil	943,452	62	6,073,600	gal/yr
TOTAL	6,767,100			

[a] Based on 633,000 lb/hr steam and 1,161 Btu/lb net enthalpy.

[b] Based on 575,000 lb/hr steam and 1,161 Btu/lb net enthalpy.

[c] Based on 300,000 lb/hr steam and 1,161 Btu/lb net enthalpy.

[d] Less than 10 percent of potential annual heat input to boiler, based on boiler design capacity (24-hr).

Notes:

Annual heat input based on 75% capacity factor (3.6135E+09 lbs steam/yr).

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

Based on fuel heating values as follows:

Bagasse - 3,600 Btu/lb

Wood chips - 4,070 Btu/lb

No. 2 Fuel Oil - 135,000 Btu/gal

ATTACHMENT USSC-EU5-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS

ATTACHMENT USSC-EU5-IV1a

IDENTIFICATION OF APPLICABLE REQUIREMENTS

Boiler No. 8

40 CFR 60.40b(a): 40 CFR 63, Subpart Db Applicability

40 CFR 60.40b(j): 40 CFR 63, Subpart Db Applicability

40 CFR 60.42b(a): Standard for Sulfur Dioxide

40 CFR 60.42b(j)(2): Standard for Sulfur Dioxide

40 CFR 60.43b(e): Standard for Particulate Matter and Opacity

40 CFR 60.43b(f): Standard for Particulate Matter and Opacity

40 CFR 60.43b(g): Standard for Particulate Matter and Opacity

40 CFR 60.45b(a): Compliance and Performance Test Methods for Sulfur Dioxide

40 CFR 60.45b(j): Compliance and Performance Test Methods for Sulfur Dioxide

40 CFR 60.46b(a): Compliance and Performance Test Methods for PM

40 CFR 60.46b(d)7: Compliance and Performance Test Methods for PM

40 CFR 60.47b(f): Emission Monitoring for Sulfur Dioxide

40 CFR 60.48b(a): Emission Monitoring for Particulate Matter and Nitrogen Oxides

40 CFR 60.49b(a): Reporting and Recordkeeping Requirements

40 CFR 60.49b(d): Reporting and Recordkeeping Requirements

40 CFR 60.49b(f): Reporting and Recordkeeping Requirements

40 CFR 60.49b(h)(1): Reporting and Recordkeeping Requirements

40 CFR 60.49b(h)(3): Reporting and Recordkeeping Requirements

40 CFR 60.49b(j): Reporting and Recordkeeping Requirements

40 CFR 60.49b(o): Reporting and Recordkeeping Requirements

40 CFR 60.49b(r): Reporting and Recordkeeping Requirements

62-204.800(b)(3), F.A.C.: NSPS Subpart Db – Adopted by Reference

62-212.400, F.A.C.: Prevention of Significant Deterioration

62-296.410(2), F.A.C.: Carbonaceous Fuel Burning Equipment

62-296.410(3), F.A.C.: Carbonaceous Fuel Burning Equipment

62.297.310(1), F.A.C.: General Compliance Test Requirements

62-297-310(2)(b), F.A.C.: General Compliance Test Requirements

62-297-310(3), F.A.C.: General Compliance Test Requirements

62-297-310(4), F.A.C.: General Compliance Test Requirements

62-297-310(5), F.A.C.: General Compliance Test Requirements

62-297-310(6), F.A.C.: General Compliance Test Requirements

62-297-310(7), F.A.C.: General Compliance Test Requirements

62-297-310(8), F.A.C.: General Compliance Test Requirements

62-297.401(1), F.A.C.: EPA Test Method 1

62-297.401(2), F.A.C.: EPA Test Method 2

62-297.401(3), F.A.C.: EPA Test Method 3

62-297.401(4), F.A.C.: EPA Test Method 4

62-297.401(5), F.A.C.: EPA Test Method 5

62-297.401(6), F.A.C.: EPA Test Method 6

62-297.401(6c), F.A.C.: EPA Test Method 6C

62-297.401(7), F.A.C.: EPA Test Method 7

62-297.401(7e), F.A.C.: EPA Test Method 7E

62-297.401(8), F.A.C.: EPA Test Method 6C

62-297.401(9), F.A.C.: EPA Test Method 9

62-297.401(10), F.A.C.: EPA Test Method 10

62-297.401(18), F.A.C.: EPA Test Method 18

62-297.401(25a), F.A.C.: EPA Test Method 25A

40 CFR 63 – Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

(See Attachment USSC-EU5-IV1b)

ATTACHMENT USSC-EU5-IV1b
NATIONAL EMISSION STANDARDS
U.S. SUGAR BOILER NO. 8

Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable?	What This Subpart Covers	Applicability Rationale
Y	**Sec. 63.7480 What is the purpose of this subpart?**	
Y	This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.	
Y	**Sec. 63.7485 Am I subject to this subpart?**	
Y	You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in Sec. 63.7575 that is located at, or is part of, a major source of HAP as defined in Sec. 63.2 or Sec. 63.761 (40 CFR part 63, subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities), except as specified in Sec. 63.7491.	Clewiston is a major source of HAPs, and Boiler No. 8 has a heat input capacity of greater than 10 MMBtu/hr.
Y	**Sec. 63.7490 What is the affected source of this subpart?**	
Y	(a) This subpart applies to new, reconstructed, or existing affected sources as described in paragraphs (a)(1) and (2) of this section.	
N	(1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory located at a major source as defined in Sec. 63.7575.	
Y	(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater located at a major source as defined in Sec. 63.7575.	Construction of Boiler No. 8 began after Jan. 13, 2003.
Y	(b) A boiler or process heater is new if you commence construction of the boiler or process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.	Construction of Boiler No. 8 began after Jan. 13, 2003.
N	(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in Sec. 63.2, you commence reconstruction after January 13, 2003, and you meet the applicability criteria at the time you commence reconstruction.	
N	(d) A boiler or process heater is existing if it is not new or reconstructed.	
N	**Sec. 63.7491 Are any boilers or process heaters not subject to this subpart?**	
N	The types of boilers and process heaters listed in paragraphs (a) through (o) of this section are not subject to this subpart.	
N	(a) A municipal waste combustor covered by 40 CFR part 60, subpart AAAA, subpart BBBB, subpart Cb or subpart Eb.	
N	(b) A hospital/medical/infectious waste incinerator covered by 40 CFR part 60, subpart Ce or subpart Ec.	
N	(c) An electric utility steam generating unit that is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity, and supplies more than one-third of its potential electric output capacity, and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.	
N	(d) A boiler or process heater required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by 40 CFR part 63, subpart EEE (e.g., hazardous waste boilers).	
N	(e) A commercial and industrial solid waste incineration unit covered by 40 CFR part 60, subpart CCCC or subpart DDDD.	
N	(f) A recovery boiler or furnace covered by 40 CFR part 63, subpart MM.	
N	(g) A boiler or process heater that is used specifically for research and development. This does not include units that only provide heat or steam to a process at a research and development facility.	
N	(h) A hot water heater as defined in this subpart.	
N	(i) A refining kettle covered by 40 CFR part 63, subpart X.	
N	(j) An ethylene cracking furnace covered by 40 CFR part 63, subpart YY.	

ATTACHMENT USSC-EU5-IV1b
NATIONAL EMISSION STANDARDS
U.S. SUGAR BOILER NO. 8

Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable?	What This Subpart Covers	Applicability Rationale
N	(k) Blast furnace stoves as described in the EPA document, entitled ``National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants--Background Information for Proposed Standards," (EPA-453/R-01-005).	
N	(l) Any boiler and process heater specifically listed as an affected source in another standard(s) under 40 CFR part 63.	
N	(m) Any boiler and process heater specifically listed as an affected source in another standard(s) established under section 129 of the Clean Air Act (CAA).	
N	(n) Temporary boilers as defined in this subpart.	
N	(o) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.	
Y	**Sec. 63.7495 When do I have to comply with this subpart?**	
Y	(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.	Boiler No. 8 wil comply upon startup.
N	(b) If you have an existing boiler or process heater, you must comply with this subpart no later than September 13, 2007.	
N	(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.	
N	(1) Any new or reconstructed boiler or process heater at the existing facility must be in compliance with this subpart upon startup.	
N	(2) Any existing boiler or process heater at the existing facility must be in compliance with this subpart within 3 years after the facility becomes a major source.	
Y	(d) You must meet the notification requirements in Sec. 63.7545 according to the schedule in Sec. 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.	
Y	**Emission Limits and Work Practice Standards**	
Y	**Sec. 63.7499 What are the subcategories of boilers and process heaters?**	
Y	The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel, and small gaseous fuel. Each subcategory is defined in Sec. 63.7575.	Boiler No. 8 is in the large solid fuel category.
Y	**Sec. 63.7500 What emission limits, work practice standards, and operating limits must I meet?**	
Y	(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section.	
Y	(1) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under Sec. 63.7507.	Boiler No. 8 must meet MACT standards for new sources.
Y	Table 1: PM - 0.025 lb/MMBtu, or TSM - 0.0003 lb/MMBtu*	New source standard.
Y	HCl - 0.02 lb/MMBtu*	New source standard.
Y	Hg - 3E-06 lb/MMBtu	New source standard.
Y	CO - 400 ppmvd @ 7% O2, 30-day rolling average	New source standard.
Y	* May opt to demonstrate compliance with health-based alternative for HCl and TSM.	New source standard.
Y	(2) You must meet each operating limit in Tables 2 through 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Tables 2 through 4 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under Sec. 63.8(f).	Boiler No. 8 uses the combination of wet scrubber and ESP control devices.

ATTACHMENT USSC-EU5-IV1b
NATIONAL EMISSION STANDARDS
U.S. SUGAR BOILER NO. 8

Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable?	What This Subpart Covers	Applicability Rationale
Y	Tables 2, 3 and 4: PM, TSM, Hg - if using ESP control with additional wet control system: maintain minimum voltage and secondary current or total power input to the ESP at or above compliance test values.	Boiler No. 8 will use ESP control with additional wet control system: maintain minimum voltage and secondary current or total power input to the ESP at or above compliance test values.
Y	HCl - maintain minimum scrubber effluent pH, pressure drop and liquid flow rate at or above compliance test values.	Boiler No. 8 will maintain minimum scrubber effluent pH, pressure drop and liquid flow rate at or above compliance test values.
Y	Fuel Analysis - maintain fuel type such that Hg, TSM and HCl emission rates are less than applicable limits.	Boiler No. 8 will use Fuel Analysis and maintain fuel type such that Hg emission rate is less than applicable limit.
Y	(b) As provided in Sec. 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.	Boiler No. 8 is requesting some altenatives to test procedures.
Y	**General Compliance Requirements**	
Y	**Sec. 63.7505 What are my general requirements for complying with this subpart?**	
Y	(a) You must be in compliance with the emission limits (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.	
Y	(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in Sec. 63.6(e)(1)(i).	
Y	(c) You can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to Sec. 63.7530(d) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using performance testing.	Boiler No. 8 will demonstrate compliance with Hg limits through fuel analysis.
Y	(d) If you demonstrate compliance with any applicable emission limit through performance testing, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under Sec. 63.8(f).	Boiler No. 8 will demonstrate compliance with TSM and HCl limits through fuel analysis.
Y	(1) For each continuous monitoring system (CMS) required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan that addresses paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan at least 60 days before your initial performance evaluation of your CMS.	A site-specific monitoring is being submitted.
Y	(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);	A site-specific monitoring is being submitted.
Y	(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and	A site-specific monitoring is being submitted.
Y	(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).	A site-specific monitoring is being submitted.

ATTACHMENT USSC-EU5-IV1b
NATIONAL EMISSION STANDARDS
U.S. SUGAR BOILER NO. 8

Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable?	What This Subpart Covers	Applicability Rationale
Y	(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.	A site-specific monitoring is being submitted.
Y	(i) Ongoing operation and maintenance procedures in accordance with the general requirements of Sec. 63.8(c)(1), (c)(3), and (c)(4)(ii);	A site-specific monitoring is being submitted.
Y	(ii) Ongoing data quality assurance procedures in accordance with the general requirements of Sec. 63.8(d); and	A site-specific monitoring is being submitted.
Y	(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of Sec. 63.10(c), (e)(1), and (e)(2)(i).	A site-specific monitoring is being submitted.
Y	(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.	A site-specific monitoring is being submitted.
Y	(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.	A site-specific monitoring is being submitted.
Y	(e) If you have an applicable emission limit or work practice standard, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in Sec. 63.6(e)(3).	A SSM Plan will be developed prior to startup of Boiler No. 8.
Y	**Sec. 63.7506 Do any boilers or process heaters have limited requirements?**	
N	(a) New or reconstructed boilers and process heaters in the large liquid fuel subcategory or the limited use liquid fuel subcategory that burn only fossil fuels and other gases and do not burn any residual oil are subject to the emission limits and applicable work practice standards in Table 1 to this subpart. You are not required to conduct a performance test to demonstrate compliance with the emission limits. You are not required to set and maintain operating limits to demonstrate continuous compliance with the emission limits. However, you must meet the requirements in paragraphs (a)(1) and (2) of this section and meet the CO work practice standard in Table 1 to this subpart.	Boiler No. 8 is not in the liquid fuel subcategory.
N	(1) To demonstrate initial compliance, you must include a signed statement in the Notification of Compliance Status report required in Sec. 63.7545(e) that indicates you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels.	Boiler No. 8 is not in the liquid fuel subcategory.
N	(2) To demonstrate continuous compliance with the applicable emission limits, you must also keep records that demonstrate that you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. You must also include a signed statement in each semiannual compliance report required in Sec. 63.7550 that indicates you burned only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels, during the reporting period.	Boiler No. 8 is not in the liquid fuel subcategory.
N	(b) The affected boilers and process heaters listed in paragraphs (b)(1) through (3) of this section are subject to only the initial notification requirements in Sec. 63.9(b) (i.e., they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).	Boiler No. 8 is not in the gaseous fuel or liquid fuel subcategories.
N	(1) Existing large and limited use gaseous fuel units.	Boiler No. 8 is not in the gaseous fuel subcategory.
N	(2) Existing large and limited use liquid fuel units.	Boiler No. 8 is not in the liquid fuel subcategory.
N	(3) New or reconstructed small liquid fuel units that burn only gaseous fuels or distillate oil. New or reconstructed small liquid fuel boilers and process heaters that commence burning of any other type of liquid fuel must comply with all applicable requirements of this subpart and subpart A of this part upon startup of burning the other type of liquid fuel.	Boiler No. 8 is not in the gaseous fuel or liquid fuel subcategories.

ATTACHMENT USSC-EU5-IV1b
NATIONAL EMISSION STANDARDS
U.S. SUGAR BOILER NO. 8

Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable?	What This Subpart Covers	Applicability Rationale
N	(c) The affected boilers and process heaters listed in paragraphs (c)(1) through (4) of this section are not subject to the initial notification requirements in Sec. 63.9(b) and are not subject to any requirements in this subpart or in subpart A of this part (i.e., they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSM plans, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart, or any other requirements in subpart A of this part.	Boiler No. 8 is not in the gaseous fuel or liquid fuel subcategories.
N	(1) Existing small solid fuel boilers and process heaters.	Boiler No. 8 is not in the gaseous fuel or liquid fuel subcategories.
N	(2) Existing small liquid fuel boilers and process heaters.	Boiler No. 8 is not in the gaseous fuel or liquid fuel subcategories.
N	(3) Existing small gaseous fuel boilers and process heaters.	Boiler No. 8 is not in the gaseous fuel or liquid fuel subcategories.
N	(4) New or reconstructed small gaseous fuel units.	Boiler No. 8 is not in the gaseous fuel or liquid fuel subcategories.
N	**Sec. 63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards?**	
N	(a) As an alternative to the requirement for large solid fuel boilers located at a single facility to demonstrate compliance with the HCl emission limit in Table 1 to this subpart, you may demonstrate eligibility for the health-based compliance alternative for HCl emissions under the procedures prescribed in appendix A to this subpart.	
N	(b) In lieu of complying with the TSM emission standards in Table 1 to this subpart based on the sum of emissions for the eight selected metals, you may demonstrate eligibility for complying with the TSM emission standards in Table 1 based on the sum of emissions for seven selected metals (by excluding manganese emissions from the summation of TSM emissions) under the procedures prescribed in appendix A to this subpart.	
Y	**Testing, Fuel Analyses, and Initial Compliance Requirements**	
Y	**Sec. 63.7510 What are my initial compliance requirements and by what date must I conduct them?**	
Y	(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to Sec. 63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to Sec. 63.7521 and Table 6 to this subpart, establishing operating limits according to Sec. 63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to Sec. 63.7525.	Boiler No. 8 will demonstrate compliance through a combination of methods.
Y	(b) For affected sources that elect to demonstrate compliance with the emission limits for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to Sec. 63.7521 and Table 6 to this subpart and establish operating limits according to Sec. 63.7530 and Table 8 to this subpart.	Boiler No. 8 will demonstrate compliance with the Hg limit through fuel analysis, ...

ATTACHMENT USSC-EU5-IV1b
NATIONAL EMISSION STANDARDS
U.S. SUGAR BOILER NO. 8

Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable?	What This Subpart Covers	Applicability Rationale
Y	(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to Sec. 63.7525(a).	Boiler No. 8 will be subject to the CO work practice standard.
N	(d) For existing affected sources, you must demonstrate initial compliance no later than 180 days after the compliance date that is specified for your source in Sec. 63.7495 and according to the applicable provisions in Sec. 63.7(a)(2) as cited in Table 10 to this subpart.	Boiler No. 8 is not an existing affected source.
Y	(e) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003 and November 12, 2004, you must demonstrate initial compliance with either the proposed emission limits and work practice standards or the promulgated emission limits and work practice standards no later than 180 days after November 12, 2004 or within 180 days after startup of the source, whichever is later, according to Sec. 63.7(a)(2)(ix).	Boiler No. 8 will demonstrate compliance with the promulgated emission limits and work practice standards within 180 days of startup.
N	(f) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003, and November 12, 2004, and you chose to comply with the proposed emission limits and work practice standards when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limits and work practice standards within 3 years after November 12, 2004 or within 3 years after startup of the affected source, whichever is later.	Boiler No. 8 will demonstrate compliance with the promulgated emission limits and work practice standards within 180 days of startup.
N	(g) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you must demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.	Boiler No. 8 commenced construction prior to November 12, 2004.
Y	**Sec. 63.7515 When must I conduct subsequent performance tests or fuel analyses?**	
Y	(a) You must conduct all applicable performance tests according to Sec. 63.7520 on an annual basis, unless you follow the requirements listed in paragraphs (b) through (d) of this section. Annual performance tests must be completed between 10 and 12 months after the previous performance test, unless you follow the requirements listed in paragraphs (b) through (d) of this section.	
Y	(b) You can conduct performance tests less often for a given pollutant if your performance tests for the pollutant (particulate matter, HCl, mercury, or TSM) for at least 3 consecutive years show that you comply with the emission limit. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months after the previous performance test.	
Y	(c) If your boiler or process heater continues to meet the emission limit for particulate matter, HCl, mercury, or TSM, you may choose to conduct performance tests for these pollutants every third year, but each such performance test must be conducted no more than 36 months after the previous performance test.	
Y	(d) If a performance test shows noncompliance with an emission limit for particulate matter, HCl, mercury, or TSM, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 3-year period show compliance.	
N	(e) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, you must conduct annual performance tests for carbon monoxide according to Sec. 63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test.	Boiler No. 8 is not in any of the limited use subcategories, and has a heat input capacity less than 100 MMBtu/hr.

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Y	(f) You must conduct a fuel analysis according to Sec. 63.7521 for each type of fuel burned no later than 5 years after the previous fuel analysis for each fuel type. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in Sec. 63.7540.	
Y	(g) You must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. This report should also verify that the operating limits for your affected source have not changed or provide documentation of revised operating parameters established according to Sec. 63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in Sec. 63.7550.	
Y	**Sec. 63.7520 What performance tests and procedures must I use?**	
Y	(a) You must conduct all performance tests according to Sec. 63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in Sec. 63.7(c) if you elect to demonstrate compliance through performance testing.	Boiler No. 8 will demonstrate compliance with the PM and HCl limits through performance testing.
Y	(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.	
N	(c) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to Sec. 63.7506(a).	Boiler No. 8 is not in one of the liquid fuel subcategories.
Y	(d) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and you must demonstrate initial compliance and establish your operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.	Boiler No. 8 will demonstrate compliance with the PM and HCl limits through performance testing.
Y	(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction.	
Y	(f) You must conduct three separate test runs for each performance test required in this section, as specified in Sec. 63.7(e)(3). Each test run must last at least 1 hour.	Boiler No. 8 will demonstrate compliance with the PM and HCl limits through performance testing.
Y	(g) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A to part 60 of this chapter to convert the measured particulate matter concentrations, the measured HCl concentrations, the measured TSM concentrations, and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates using F-factors.	Boiler No. 8 will demonstrate compliance with the PM and HCl limits through performance testing.
Y	**Sec. 63.7521 What fuel analyses and procedures must I use?**	
Y	(a) You must conduct fuel analyses according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable.	Boiler No. 8 will be required to conduct fuel analysis for TSM, Hg and HCl.
Y	(b) You must develop and submit a site-specific fuel analysis plan to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section.	Boiler No. 8 will submit a site-specific fuel analysis plan for TSM, Hg and HCl.
Y	(1) You must submit the fuel analysis plan no later than 60 days before the date that you intend to demonstrate compliance.	Boiler No. 8 will submit a site-specific fuel analysis plan for TSM, Hg and HCl.

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Y	(2) You must include the information contained in paragraphs (b)(2)(i) through (vi) of this section in your fuel analysis plan.	Boiler No. 8 will submit a site-specific fuel analysis plan for TSM, Hg and HCl.
Y	(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.	
Y	(ii) For each fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.	
Y	(iii) For each fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.	
Y	(iv) For each fuel type, the analytical methods, with the expected minimum detection levels, to be used for the measurement of selected total metals, chlorine, or mercury.	
Y	(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that will be used.	Boiler No. 8 will submit a site-specific fuel analysis plan for TSM, Hg and HCl.
N	(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.	Boiler No. 8 will not rely upon a fuel analysis from a fuel supplier.
Y	(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section.	Boiler No. 8 will submit a site-specific fuel analysis plan for TSM, Hg and HCl.
Y	(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.	
Y	(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. Collect all the material (fines and coarse) in the full cross-section. Transfer the sample to a clean plastic bag.	Boiler No. 8 will submit a request for an alternative test procedure since it is not practical to stop the belt feeder.
Y	(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period.	
Y	(2) If sampling from a fuel pile or truck, collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.	
Y	(i) For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile.	
Y	(ii) At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.	
Y	(iii) Transfer all samples to a clean plastic bag for further processing.	
Y	(d) Prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.	
Y	(1) Throughly mix and pour the entire composite sample over a clean plastic sheet.	
Y	(2) Break sample pieces larger than 3 inches into smaller sizes.	
Y	(3) Make a pie shape with the entire composite sample and subdivide it into four equal parts.	
Y	(4) Separate one of the quarter samples as the first subset.	
Y	(5) If this subset is too large for grinding, repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.	
Y	(6) Grind the sample in a mill.	

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Y	(7) Use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure..	
Y	(e) Determine the concentration of pollutants in the fuel (mercury, chlorine, and/or total selected metals) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart.	
N	**Sec. 63.7522 Can I use emission averaging to comply with this subpart?**	Boiler No. 8 is not eligible for the emissions averaging option.
N	(a) As an alternative to meeting the requirements of Sec. 63.7500, if you have more than one existing large solid fuel boiler located at your facility, you may demonstrate compliance by emission averaging according to the procedures in this section in a State that does not choose to exclude emission averaging.	
N	(b) For each existing large solid fuel boiler in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on November 12, 2004 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on November 12, 2004.	
N	(c) You may average particulate matter or TSM, HCl, and mercury emissions from existing large solid fuel boilers to demonstrate compliance with the limits in Table 1 to this subpart if you satisfy the requirements in paragraphs (d), (e), and (f) of this section.	
N	(d) The weighted average emissions from the existing large solid fuel boilers participating in the emissions averaging option must be in compliance with the limits in Table 1 to this subpart at all times following the compliance date specified in Sec. 63.7495.	
N	(e) You must demonstrate initial compliance according to paragraphs (e)(1) or (2) of this section.	
N	(1) You must use Equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.	
N	Where:	
N	AveWeighted = Average weighted emissions for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.	
N	Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in Sec. 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.	
N	Hm = Maximum rated heat input capacity of boiler, i, in units of million Btu per hour.	
N	n = Number of large solid fuel boilers participating in the emissions averaging option.	
N	(2) If you are not capable of monitoring heat input, you can use Equation 2 of this section as an alternative to using equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.	
N	Where:	
N	AveWeighted = Average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.	
N	Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in Sec. 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.	
N	Sm = Maximum steam generation by boiler, i, in units of pounds.	

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Applicable?	What This Subpart Covers	Applicability Rationale
N	Cf = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.	
N	(f) You must demonstrate continuous compliance on a 12-month rolling average basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) and (2). The first 12-month rolling-average period begins on the compliance date specified in Sec. 63.7495.	
N	(1) For each calendar month, you must use Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual heat capacity for each existing large solid fuel boiler participating in the emissions averaging option.	
N	Where:	
N	AveWeighted Emissions = 12-month rolling average weighted emission level for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.	
N	Er = Emission rate, calculated during the most recent compliance test, (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in Sec. 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.	
N	Hb = The average heat input for each calendar month of boiler, i, in units of million Btu.	
N	n = Number of large solid fuel boilers participating in the emissions averaging option.	
N	(2) If you are not capable of monitoring heat input, you can use Equation 4 of this section as an alternative to using Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual steam generation from the large solid fuel boilers participating in the emissions averaging option.	
N	Where:	
N	AveWeighted Emissions = 12-month rolling average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.	
N	Er = Emission rate, calculated during the most recent compliance test (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in Sec. 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.	
N	Sa = Actual steam generation for each calender month by boiler, i, in units of pounds.	
N	Cf = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.	
N	(g) You must develop and submit an implementation plan for emission averaging to the applicable regulatory authority for review and approval according to the following procedures and requirements in paragraphs (g)(1) through (4).	
N	(1) You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.	
N	(2) You must include the information contained in paragraphs g)(2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:	
N	(i) The identification of all existing large solid fuel boilers in the averaging group, including for each either the applicable HAP emission level or the control technology installed on;	
N	(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group of large solid fuel boilers;	
N	(iii) The specific control technology or pollution prevention measure to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple sources, the owner or operator must identify each source;	

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Applicable?	What This Subpart Covers	Applicability Rationale
N	(iv) The test plan for the measurement of particulate matter (or TSM), HCl, or mercury emissions in accordance with the requirements in Sec. 63.7520;	
N	(v) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;	
N	(vi) If you request to monitor an alternative operating parameter pursuant to Sec. 63.7525, you must also include:	
N	(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and	
N	(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the applicable regulatory authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and	
N	(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.	
N	(3) Upon receipt, the regulatory authority shall review and approve or disapprove the plan according to the following criteria:	
N	(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and	
N	(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.	
N	(4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:	
N	(i) Any averaging between emissions of differing pollutants or between differing sources; or	
N	(ii) The inclusion of any emission source other than an existing large solid fuel boiler.	
Y	**Sec. 63.7525 What are my monitoring, installation, operation, and maintenance requirements?**	
Y	(a) If you have an applicable work practice standard for carbon monoxide, and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, you must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in Sec. 63.7495.	Boiler No. 8 will be subject to the CO work practice standard.
Y	(1) Each CEMS must be installed, operated, and maintained according to Performance Specification (PS) 4A of 40 CFR, part 60, appendix B, and according to the site-specific monitoring plan developed according to Sec. 63.7505(d).	Boiler No. 8 will be subject to the CO work practice standard.
Y	(2) You must conduct a performance evaluation of each CEMS according to the requirements in Sec. 63.8 and according to PS 4A of 40 CFR part 60, appendix B.	Boiler No. 8 will be subject to the CO work practice standard.
Y	(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.	Boiler No. 8 will be subject to the CO work practice standard.
Y	(4) The CEMS data must be reduced as specified in Sec. 63.8(g)(2).	Boiler No. 8 will be subject to the CO work practice standard.
Y	(5) You must calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.	Boiler No. 8 will be subject to the CO work practice standard.
Y	(6) For purposes of calculating data averages, you must not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when your boiler or process heater is operating at less than 50 percent of its rated capacity. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements.	Boiler No. 8 will be subject to the CO work practice standard.

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N	(b) If you have an applicable opacity operating limit, you must install, operate, certify, and maintain each continuous opacity monitoring system (COMS) according to the procedures in paragraphs (b)(1) through (7) of this section by the compliance date specified in Sec. 63.7495.	Boiler No. 8 will not be subject to an opacity standard since it uses a wet scrubber in combination with an ESP.
N	(1) Each COMS must be installed, operated, and maintained according to PS 1 of 40 CFR part 60, appendix B.	Boiler No. 8 will not be subject to an opacity standard since it uses a wet scrubber in combination with an ESP.
N	(2) You must conduct a performance evaluation of each COMS according to the requirements in Sec. 63.8 and according to PS 1 of 40 CFR part 60, appendix B.	Boiler No. 8 will not be subject to an opacity standard since it uses a wet scrubber in combination with an ESP.
N	(3) As specified in Sec. 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.	Boiler No. 8 will not be subject to an opacity standard since it uses a wet scrubber in combination with an ESP.
N	(4) The COMS data must be reduced as specified in Sec. 63.8(g)(2).	Boiler No. 8 will not be subject to an opacity standard since it uses a wet scrubber in combination with an ESP.
N	(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in Sec. 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.	Boiler No. 8 will not be subject to an opacity standard since it uses a wet scrubber in combination with an ESP.
N	(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of Sec. 63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.	Boiler No. 8 will not be subject to an opacity standard since it uses a wet scrubber in combination with an ESP.
N	(7) You must determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected for periods during which the COMS is not out of control.	Boiler No. 8 will not be subject to an opacity standard since it uses a wet scrubber in combination with an ESP.
Y	(c) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs (c)(1) through (5) of this section by the compliance date specified in Sec. 63.7495.	Boiler No. 8 will have CMS for the wet scrubber and the ESP.
Y	(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.	Boiler No. 8 will have CMS for the wet scrubber and the ESP.

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Y	(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.	Boiler No. 8 will have CMS for the wet scrubber and the ESP.
Y	(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.	Boiler No. 8 will have CMS for the wet scrubber and the ESP.
Y	(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.	Boiler No. 8 will have CMS for the wet scrubber and the ESP.
Y	(5) Record the results of each inspection, calibration, and validation check.	Boiler No. 8 will have CMS for the wet scrubber and the ESP.
Y	(d) If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (c) and (d)(1) through (4) of this section.	Boiler No. 8 will have a liquid flow measuring device on the wet scrubber.
Y	(1) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.	Boiler No. 8 will have a liquid flow measuring device on the wet scrubber.
Y	(2) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.	Boiler No. 8 will have a liquid flow measuring device on the wet scrubber.
Y	(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.	Boiler No. 8 will have a liquid flow measuring device on the wet scrubber.
Y	(4) Conduct a flow sensor calibration check at least semiannually.	Boiler No. 8 will have a liquid flow measuring device on the wet scrubber.
Y	(e) If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (c) and (e)(1) through (6) of this section.	Boiler No. 8 will have a pressure measuring device on the wet scrubber.
Y	(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.	Boiler No. 8 will have a pressure measuring device on the wet scrubber.
Y	(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.	Boiler No. 8 will have a pressure measuring device on the wet scrubber.
Y	(3) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.	Boiler No. 8 will have a pressure measuring device on the wet scrubber.

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Y	(4) Check pressure tap pluggage daily.	Boiler No. 8 will have a pressure measuring device on the wet scrubber.
Y	(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.	Boiler No. 8 will have a pressure measuring device on the wet scrubber.
Y	(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.	Boiler No. 8 will have a pressure measuring device on the wet scrubber.
Y	(f) If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (c) and (f)(1) through (3) of this section.	Boiler No. 8 will have a pH measuring device on the wet scrubber.
Y	(1) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.	Boiler No. 8 will have a pH measuring device on the wet scrubber.
Y	(2) Ensure the sample is properly mixed and representative of the fluid to be measured.	Boiler No. 8 will have a pH measuring device on the wet scrubber.
Y	(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.	Boiler No. 8 will have a pH measuring device on the wet scrubber.
Y	(g) If you have an operating limit that requires the use of equipment to monitor voltage and secondary current (or total power input) of an electrostatic precipitator (ESP), you must use voltage and secondary current monitoring equipment to measure voltage and secondary current to the ESP.	Boiler No. 8 will be required to measure ESP operating parameters.
N	(h) If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (c) and (h)(1) through (3) of this section.	Boiler No. 8 will not utilize sorbent injection.
N	(1) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.	Boiler No. 8 will not utilize sorbent injection.
N	(2) Install and calibrate the device in accordance with manufacturer's procedures and specifications.	Boiler No. 8 will not utilize sorbent injection.
N	(3) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.	Boiler No. 8 will not utilize sorbent injection.
N	(i) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (i)(1) through (8) of this section.	Boiler No. 8 will not use a fabric filter.
N	(4) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.	Boiler No. 8 will not use a fabric filter.
N	(5) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA 454/R-98-015, September 1997.	Boiler No. 8 will not use a fabric filter.

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N	(6) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.	Boiler No. 8 will not use a fabric filter.
N	(7) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.	Boiler No. 8 will not use a fabric filter.
N	(8) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.	Boiler No. 8 will not use a fabric filter.
N	(9) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.	Boiler No. 8 will not use a fabric filter.
N	(10) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.	Boiler No. 8 will not use a fabric filter.
N	(11) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.	Boiler No. 8 will not use a fabric filter.
Y	**Sec. 63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?**	
Y	(a) You must demonstrate initial compliance with each emission limit and work practice standard that applies to you by either conducting initial performance tests and establishing operating limits, as applicable, according to Sec. 63.7520, paragraph (c) of this section, and Tables 5 and 7 to this subpart OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to Sec. 63.7521, paragraph (d) of this section, and Tables 6 and 8 to this subpart.	Boiler No. 8 will conduct initial performance tests for PM and HCl and fuel analysis for Hg.
N	(b) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to Sec. 63.7506(a).	Boiler No. 8 is not in one of the liquid fuel subcategories.
Y	(c) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Tables 2 through 4 to this subpart that applies to you according to the requirements in Sec. 63.7520, Table 7 to this subpart, and paragraph (c)(4) of this section, as applicable. You must also conduct fuel analyses according to Sec. 63.7521 and establish maximum fuel pollutant input levels according to paragraphs (c)(1) through (3) of this section, as applicable.	Boiler No. 8 will conduct initial performance tests for PM, PM and HCl and fuel analysis for Hg.
Y	(1) You must establish the maximum chlorine fuel input (Cinput) during the initial performance testing according to the procedures in paragraphs (c)(1)(i) through (iii) of this section.	Boiler No. 8 will conduct initial performance tests and fuel analysis for HCl.
Y	(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of chlorine.	
Y	(ii) During the performance testing for HCl, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (Ci).	
Y	(iii) You must establish a maximum chlorine input level using Equation 5 of this section.	
Y	Where:	
Y	Clinput = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.	
Y	Ci = Arithmetic average concentration of chlorine in fuel type, i, analyzed according to Sec. 63.7521, in units of pounds per million Btu.	

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Applicable?	What This Subpart Covers	Applicability Rationale
Y	Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.	
Y	n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.	
N	(2) If you choose to comply with the alternative TSM emission limit instead of the particulate matter emission limit, you must establish the maximum TSM fuel input level (TSMinput) during the initial performance testing according to the procedures in paragraphs (c)(2)(i) through (iii) of this section.	Boiler No. 8 will not choose to comply with the alternative TSM limit.
N	(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.	
N	(ii) During the performance testing for TSM, you must determine the fraction of total heat input from each fuel burned (Qi) based on the fuel mixture that has the highest content of total selected metals, and the average TSM concentration of each fuel type burned (Mi).	
N	(iii) You must establish a baseline TSM input level using Equation 6 of this section.	
N	Where:	
N	TSMinput = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.	
N	Mi = Arithmetic average concentration of TSM in fuel type, i, analyzed according to Sec. 63.7521, in units of pounds per million Btu.	
N	Qi = Fraction of total heat input from based fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.	
N	n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.	
N	(3) You must establish the maximum mercury fuel input level (Mercuryinput) during the initial performance testing using the procedures in paragraphs (c)(3)(i) through (iii) of this section.	Boiler No. 8 will comply with the Hg limit through fuel analysis.
N	(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.	
N	(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Qi) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HGi).	
N	(iii) You must establish a maximum mercury input level using Equation 7 of this section.	
N	Where:	
N	Mercuryinput = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.	
N	HGi = Arithmetic average concentration of mercury in fuel type, i, analyzed according to Sec. 63.7521, in units of pounds per million Btu.	

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Applicable?	What This Subpart Covers	Applicability Rationale
N	Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.	
N	n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.	
Y	(4) You must establish parameter operating limits according to paragraphs (c)(4)(i) through (iv) of this section.	
Y	(i) For a wet scrubber, you must establish the minimum scrubber effluent pH, liquid flowrate, and pressure drop as defined in Sec. 63.7575, as your operating limits during the three-run performance test. If you use a wet scrubber and you conduct separate performance tests for particulate matter, HCl, and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flowrate and pressure drop operating limits at the highest minimum values established during the performance tests.	Boiler No. 8 will utilize a wet scrubber.
Y	(ii) For an electrostatic precipitator, you must establish the minimum voltage and secondary current (or total power input), as defined in Sec. 63.7575, as your operating limits during the three-run performance test.	Boiler No. 8 will utilize an ESP.
N	(iii) For a dry scrubber, you must establish the minimum sorbent injection rate, as defined in Sec. 63.7575, as your operating limit during the three-run performance test.	Boiler No. 8 will not utilize a dry scrubber.
N	(iv) The operating limit for boilers or process heaters with fabric filters that choose to demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in Sec. 63.7525, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.	Boiler No. 8 will not utilize a fabric filter.
Y	(d) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to Sec. 63.7521 and follow the procedures in paragraphs (d)(1) through (5) of this section.	Boiler No. 8 will comply with the Hg limit through fuel analysis.
Y	(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.	The worst case fuel will be bagasse.
Y	(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z-statistic test described in Equation 8 of this section.	
Y	Where:	
Y	P90 = 90th percentile confidence level pollutant concentration, in pounds per million Btu.	
Y	mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to Sec. 63.7521, in units of pounds per million Btu.	
Y	SD = Standard deviation of the pollutant concentration in the fuel samples analyzed according to Sec. 63.7521, in units of pounds per million Btu.	
Y	t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.	
Y	(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 9 of this section must be less than the applicable emission limit for HCl.	Boiler No. 8 will comply with the HCl limit through fuel analysis and a site-specific risk analysis.

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Applicable?	What This Subpart Covers	Applicability Rationale
Y	Where:	
Y	HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.	
Y	Ci90 = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.	
Y	Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.	
Y	n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.	
Y	1.028 = Molecular weight ratio of HCl to chlorine.	
N	(4) To demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate that you calculate for your boiler or process heater using Equation 10 of this section must be less than the applicable emission limit for TSM.	Boiler No. 8 will not choose to comply with the alternative TSM limit.
N	Where:	
N	TSM = TSM emission rate from the boiler or process heater in units of pounds per million Btu.	
N	Mi90 = 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.	
N	Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of total selected metals. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.	
N	n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.	
Y	(5) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 11 of this section must be less than the applicable emission limit for mercury.	Boiler No. 8 will comply with the Hg limit through fuel analysis.
Y	Where:	
Y	Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.	
Y	HGi90 = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.	
Y	Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.	
Y	n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.	
Y	(e) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in Sec. 63.7545(e).	
Y	**Continuous Compliance Requirements**	
Y	**Sec. 63.7535 How do I monitor and collect data to demonstrate continuous compliance?**	
Y	(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by Sec. 63.7505(d).	

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Applicable?	What This Subpart Covers	Applicability Rationale
Y	(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.	
Y	(c) You may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity.	Boiler No. 8 will have a CEMS for CO.
Y	**Sec. 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?**	
Y	(a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (10) of this section.	
Y	(1) Following the date on which the initial performance test is completed or is required to be completed under Sec. 63.7 and 63.7510, whichever date comes first, you must not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in Tables 2 through 4 to this subpart at all times except during periods of startup, shutdown and malfunction. Operating limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits.	
Y	(2) You must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would either result in lower emissions of TSM, HCl, and mercury, than the applicable emission limit for each pollutant (if you demonstrate compliance through fuel analysis), or result in lower fuel input of TSM, chlorine, and mercury than the maximum values calculated during the last performance tests (if you demonstrate compliance through performance testing).	
N	(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis and you plan to burn a new type of fuel, you must recalculate the HCl emission rate using Equation 9 of Sec. 63.7530 according to paragraphs (a)(3)(i) through (iii) of this section.	Boiler No. 8 will demonstrate compliance with HCl by performance testing.
N	(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to Sec. 63.7521(b).	
N	(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.	
N	(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 9 of Sec. 63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.	
Y	(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel type or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 5 of Sec. 63.7530. If the results of recalculating the maximum chlorine input using Equation 5 of Sec. 63.7530 are higher than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in Sec. 63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in Sec. 63.7530(c).	
N	(5) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 10 of Sec. 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section.	Boiler No. 8 will not choose to comply with the alternative TSM limit.

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Applicable?	What This Subpart Covers	Applicability Rationale
N	(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to Sec. 63.7521(b).	
N	(ii) You must determine the new mixture of fuels that will have the highest content of TSM.	
N	(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 10 of Sec. 63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.	
N	(6) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 6 of Sec. 63.7530. If the results of recalculating the maximum total selected metals input using Equation 6 of Sec. 63.7530 are higher than the maximum TSM input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in Sec. 63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in Sec. 63.7530(c).	Boiler No. 8 will not choose to comply with the alternative TSM limit.
Y	(7) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 11 of Sec. 63.7530 according to the procedures specified in paragraphs (a)(7)(i) through (iii) of this section.	Boiler No. 8 will comply with the Hg limit through fuel analysis.
Y	(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to Sec. 63.7521(b).	
Y	(ii) You must determine the new mixture of fuels that will have the highest content of mercury.	
Y	(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 11 of Sec. 63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.	
N	(8) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 7 of Sec. 63.7530. If the results of recalculating the maximum mercury input using Equation 7 of Sec. 63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in Sec. 63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in Sec. 63.7530(c).	Boiler No. 8 will comply with the Hg limit through fuel analysis.
N	(9) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to your SSMP, and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.	Boiler No. 8 will not utilize a fabric filter.
Y	(10) If you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to Sec. 63.7525(a), then you must meet the requirements in paragraphs (a)(10)(i) through (iii) of this section.	Boiler No. 8 will have a CEMS for CO.
Y	(i) You must continuously monitor carbon monoxide according to Sec. 63.7525(a) and 63.7535.	
Y	(ii) Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 to this subpart at all times except during periods of startup, shutdown, malfunction, and when your boiler or process heater is operating at less than 50 percent of rated capacity.	

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Y	(iii) Keep records of carbon monoxide levels according to Sec. 63.7555(b).	
Y	(b) You must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in Sec. 63.7550.	
Y	(c) During periods of startup, shutdown, and malfunction, you must operate in accordance with the SSMP as required in Sec. 63.7505(e).	
Y	(d) Consistent with Sec. Sec. 63.6(e)and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with your SSMP. The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in Sec. 63.6(e).	
N	**Sec. 63.7541 How do I demonstrate continuous compliance under the emission averaging provision?**	Boiler No. 8 is not eligible for the emissions averaging provision.
N	(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (4) of this section.	
N	(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing large solid fuel boilers participating in the emissions averaging option as determined in Sec. 63.7522(f) and (g);	
N	(2) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a dry control system, maintain opacity at or below the applicable limit;	
N	(3) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 3-hour average parameter values at or below the operating limits established during the most recent performance test; and	
N	(4) For each existing solid fuel boiler participating in the emissions averaging option that has an approved alternative operating plan, maintain the 3-hour average parameter values at or below the operating limits established in the most recent performance test.	
N	(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (4) of this section, except during periods of startup, shutdown, and malfunction, is a deviation.	
Y	**Notification, Reports, and Records**	
Y	**Sec. 63.7545 What notifications must I submit and when?**	
Y	(a) You must submit all of the notifications in Sec. Sec. 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.	
N	(b) As specified in Sec. 63.9(b)(2), if you startup your affected source before November 12, 2004, you must submit an Initial Notification not later than 120 days after November 12, 2004. The Initial Notification must include the information required in paragraphs (b)(1) and (2) of this section, as applicable.	Boiler No. 8 will startup after Nov. 12, 2004.
N	(1) If your affected source has an annual capacity factor of greater than 10 percent, your Initial Notification must include the information required by Sec. 63.9(b)(2).	
N	(2) If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories (the limited use solid fuel subcategory, the limited use liquid fuel subcategory, or the limited use gaseous fuel subcategory), your Initial Notification must include the information required by Sec. 63.9(b)(2) and also a signed statement indicating your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.	

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Y	(c) As specified in Sec. 63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.	Boiler No. 8 must submit the initial notification within 15 days of startup.
Y	(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.	Boiler No. 8 will submit the Notification of Intent at least 30 days prior to beginning testing.
Y	(e) If you are required to conduct an initial compliance demonstration as specified in Sec. 63.7530(a), you must submit a Notification of Compliance Status according to Sec. 63.9(h)(2)(ii). For each initial compliance demonstration, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to Sec. 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9), as applicable.	The Notification of Compliance Status will be submitted within 60 days following completion of the performance tests.
Y	(1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.	
Y	(2) Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.	
Y	(3) Identification of whether you are complying with the particulate matter emission limit or the alternative total selected metals emission limit.	
Y	(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis.	
Y	(5) Identification of whether you plan to demonstrate compliance by emissions averaging.	
Y	(6) A signed certification that you have met all applicable emission limits and work practice standards.	
Y	(7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 to this subpart.	
Y	(8) If your new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous fuels, you must submit a signed statement certifying this in your Notification of Compliance Status report.	
Y	(9) If you had a deviation from any emission limit or work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.	
Y	**Sec. 63.7550 What reports must I submit and when?**	
Y	(a) You must submit each report in Table 9 to this subpart that applies to you.	
Y	(b) Unless the EPA Administrator has approved a different schedule for submission of reports under Sec. 63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.	
Y	(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in Sec. 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in Sec. 63.7495.	
Y	(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in Sec. 63.7495.	

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Y	(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.	
Y	(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.	
Y	(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.	
Y	(c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.	
Y	(1) Company name and address.	
Y	(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.	
Y	(3) Date of report and beginning and ending dates of the reporting period.	
Y	(4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.	
Y	(5) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.	
Y	(6) A signed statement indicating that you burned no new types of fuel. Or, if you did burn a new type of fuel, you must submit the calculation of chlorine input, using Equation 5 of Sec. 63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 9 of Sec. 63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of TSM input, using Equation 6 of Sec. 63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate using Equation 10 of Sec. 63.7530 that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of mercury input, using Equation 7 of Sec. 63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 11 of Sec. 63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).	
Y	(7) If you wish to burn a new type of fuel and you can not demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of Sec. 63.7530, the maximum TSM input operating limit using Equation 6 of Sec. 63.7530, or the maximum mercury input operating limit using Equation 7 of Sec. 63.7530, you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.	
Y	(8) The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.	
Y	(9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in Sec. 63.10(d)(5)(i).	

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Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable?	What This Subpart Covers	Applicability Rationale
Y	(10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.	
Y	(11) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in Sec. 63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.	
Y	(d) For each deviation from an emission limit or operating limit in this subpart and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.	
Y	(1) The total operating time of each affected source during the reporting period.	
Y	(2) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.	
Y	(3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.	
Y	(4) A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit, or a deviation from the mercury emission limit.	
Y	(e) For each deviation from an emission limitation and operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c) (1) through (10) of this section and the information required in paragraphs (e) (1) through (12) of this section. This includes periods of startup, shutdown, and malfunction and any deviations from your site-specific monitoring plan as required in Sec. 63.7505(d).	
Y	(1) The date and time that each malfunction started and stopped and description of the nature of the deviation (i.e., what you deviated from).	
Y	(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.	
Y	(3) The date, time, and duration that each CMS was out of control, including the information in Sec. 63.8(c)(8).	
Y	(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.	
Y	(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.	
Y	(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.	
Y	(7) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.	
Y	(8) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other control devices.	
Y	(9) A brief description of the source for which there was a deviation.	
Y	(10) A brief description of each CMS for which there was a deviation.	
Y	(11) The date of the latest CMS certification or audit for the system for which there was a deviation.	
Y	(12) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.	

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Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable?	What This Subpart Covers	Applicability Rationale
Y	(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.	
N	(g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in Sec. 63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.	Boiler No. 8 is not in the new gaseous fuel category.
N	(1) Company name and address.	
N	(2) Identification of the affected unit.	
N	(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.	
N	(4) Type of alternative fuel that you intend to use.	
N	(5) Dates when the alternative fuel use is expected to begin and end.	
Y	**Sec. 63.7555 What records must I keep?**	
Y	(a) You must keep records according to paragraphs (a)(1) through (3) of this section.	
Y	(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in Sec. 63.10(b)(2)(xiv).	
Y	(2) The records in Sec. 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.	
Y	(3) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in Sec. 63.10(b)(2)(viii).	
Y	(b) For each CEMS, CPMS, and COMS, you must keep records according to paragraphs (b)(1) through (5) of this section.	
Y	(1) Records described in Sec. 63.10(b)(2) (vi) through (xi).	
Y	(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in Sec. 63.6(h)(7)(i) and (ii).	
Y	(3) Previous (i.e., superseded) versions of the performance evaluation plan as required in Sec. 63.8(d)(3).	
Y	(4) Request for alternatives to relative accuracy test for CEMS as required in Sec. 63.8(f)(6)(i).	
Y	(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.	
Y	(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits such as opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that applies to you.	
Y	(d) For each boiler or process heater subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (5) of this section.	
Y	(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.	

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Applicable?	What This Subpart Covers	Applicability Rationale
Y	(2) You must keep records of monthly hours of operation by each boiler or process heater. This requirement applies only to limited-use boilers and process heaters.	
Y	(3) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 5 of Sec. 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 9 of Sec. 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.	
N	(4) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 6 of Sec. 63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 10 of Sec. 63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.	Boiler No. 8 is not choosing to comply with the alternative TSM limit.
Y	(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 7 of Sec. 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 11 of Sec. 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.	
N	(e) If your boiler or process heater is subject to an emission limit or work practice standard in Table 1 to this subpart and has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories, you must keep the records in paragraphs (e)(1) and (2) of this section.	Boiler No. 8 does not have a 10 percent capacity factor limitation.
N	(1) A copy of the federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.	
N	(2) Fuel use records for the days the boiler or process heater was operating.	
Y	**Sec. 63.7560 In what form and how long must I keep my records?**	
Y	(a) Your records must be in a form suitable and readily available for expeditious review, according to Sec. 63.10(b)(1).	
Y	(b) As specified in Sec. 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.	
Y	(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to Sec. 63.10(b)(1). You can keep the records off site for the remaining 3 years.	
Y	**Other Requirements and Information**	
Y	**Sec. 63.7565 What parts of the General Provisions apply to me?**	
Y	Table 10 to this subpart shows which parts of the General Provisions in Sec. Sec. 63.1 through 63.15 apply to you.	
Y	**Sec. 63.7570 Who implements and enforces this subpart?**	

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Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable?	What This Subpart Covers	Applicability Rationale
Y	(a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.	
Y	(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency, however, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.	
Y	(1) Approval of alternatives to the non-opacity emission limits and work practice standards in Sec. 63.7500(a) and (b) under Sec. 63.6(g).	
Y	(2) Approval of alternative opacity emission limits in Sec. 63.7500(a) under Sec. 63.6(h)(9).	
Y	(3) Approval of major change to test methods in Table 5 to this subpart under Sec. 63.7(e)(2)(ii) and (f) and as defined in Sec. 63.90.	
Y	(4) Approval of major change to monitoring under Sec. 63.8(f) and as defined in Sec. 63.90.	
Y	(5) Approval of major change to recordkeeping and reporting under Sec. 63.10(f) and as defined in Sec. 63.90.	
Y	**Sec. 63.7575 What definitions apply to this subpart?**	
Y	Terms used in this subpart are defined in the CAA, in Sec. 63.2 (the General Provisions), and in this section as follows:	
Y	**Annual capacity factor** means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year, and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.	
Y	**Bag leak detection system** means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.	
Y	**Biomass fuel** means unadulterated wood as defined in this subpart, wood residue, and wood products (e.g., trees, tree stumps, tree limbs, bark, lumber, sawdust, sanderdust, chips, scraps, slabs, millings, and shavings); animal litter; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds.	
Y	**Blast furnace gas** fuel-fired boiler or process heater means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total heat input (based on an annual average) from blast furnace gas.	
Y	**Boiler** means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from this definition.	
Y	**Coal** means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by the American Society for Testing and Materials in ASTM D388-991 .\1\, ``Standard Specification for Classification of Coals by Rank \1\'' (incorporated by reference, see Sec. 63.14(b)), coal refuse, and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures, for the purposes of this subpart. Coal derived gases are excluded from this definition.	
Y	**Coal refuse** means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.	
Y	**Commercial/institutional boiler** means a boiler used in commercial establishments or institutional establishments such as medical centers, research centers, institutions of higher education, hotels, and laundries to provide electricity, steam, and/or hot water.	
Y	**Construction/demolition material** means waste building material that result from the construction or demolition operations on houses and commercial and industrial buildings.	

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Applicable?	What This Subpart Covers	Applicability Rationale
Y	**Deviation.** (1) Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:	
Y	(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;	
Y	(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or	
Y	(iii) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.	
Y	(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.	
Y	**Distillate oil** means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D396-02a, ``Standard Specifications for Fuel Oils 1" (incorporated by reference, see Sec. 63.14(b)).	
Y	**Dry scrubber** means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition.	
Y	**Electric utility steam generating unit** means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.	
Y	**Electrostatic precipitator** means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper.	
Y	**Fabric filter** means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.	
Y	**Federally enforceable** means all limitations and conditions that are enforceable by the EPA Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.	
Y	**Firetube boiler** means a boiler in which hot gases of combustion pass through the tubes and water contacts the outside surfaces of the tubes.	
Y	**Fossil fuel** means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials.	
Y	**Fuel type** means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material.	
Y	**Gaseous fuel** includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas is exempted from this definition.	
Y	**Heat input** means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.	
Y	**Hot water heater** means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210[deg]F (99[deg]C).	

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Applicable?	What This Subpart Covers	Applicability Rationale
Y	**Industrial boiler** means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.	
Y	**Large gaseous fuel subcategory** includes any watertube boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.	
Y	**Large liquid fuel subcategory** includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent. Large gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.	
Y	**Large solid fuel subcategory** includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.	
Y	**Limited use gaseous fuel subcategory** includes any watertube boiler or process heater that burns gaseous fuels not combined with any liquid or solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.	
Y	**Limited use liquid fuel subcategory** includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent. Limited use gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.	
Y	**Limited use solid fuel subcategory** includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.	
Y	**Liquid fossil fuel** means petroleum, distillate oil, residual oil and any form of liquid fuel derived from such material.	
Y	**Liquid fuel** includes, but is not limited to, distillate oil, residual oil, waste oil, and process liquids.	
Y	**Minimum pressure drop** means 90 percent of the lowest test-run average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.	
Y	**Minimum scrubber effluent pH** means 90 percent of the lowest test-run average effluent pH measured at the outlet of the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.	
Y	**Minimum scrubber flow rate** means 90 percent of the lowest test-run average flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.	
Y	**Minimum sorbent flow rate** means 90 percent of the lowest test-run average sorbent (or activated carbon) flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.	
Y	**Minimum voltage or amperage** means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.	
Y	**Natural gas** means:	
Y	(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or	

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Applicable?	What This Subpart Covers	Applicability Rationale
Y	(2) Liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835-03a, "Standard Specification for Liquid Petroleum Gases" (incorporated by reference, see Sec. 63.14(b)).	
Y	**Opacity** means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.	
Y	**Particulate matter** means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an alternative method.	
Y	**Period of natural gas curtailment or supply interruption** means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.	
Y	**Process heater** means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves.	
Y	**Residual oil** means crude oil, and all fuel oil numbers 4, 5 and 6, as defined by the American Society for Testing and Materials in ASTM D396-02a, ``Standard Specifications for Fuel Oils 1" (incorporated by reference, see Sec. 63.14(b)).	
Y	**Responsible official** means responsible official as defined in 40 CFR 70.2.	
Y	**Small gaseous fuel subcategory** includes any firetube boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and any boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.	
Y	**Small liquid fuel subcategory** includes any firetube boiler that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and any boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input. Small gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.	
Y	**Small solid fuel subcategory** includes any firetube boiler that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, and any other boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.	
Y	**Solid fuel** includes, but is not limited to, coal, wood, biomass, tires, plastics, and other nonfossil solid materials.	
Y	**Temporary boiler** means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.	
Y	**Total selected metals** means the combination of the following metallic HAP: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.	
Y	**Unadulterated wood** means wood or wood products that have not been painted, pigment-stained, or pressure treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote. Plywood, particle board, oriented strand board, and other types of wood products bound by glues and resins are included in this definition.	
Y	**Waste heat boiler** means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler are not considered waste heat boilers, but are considered boilers. Waste heat boilers are also referred to as heat recovery steam generators.	

ATTACHMENT USSC-EU5-IV1b
NATIONAL EMISSION STANDARDS
U.S. SUGAR BOILER NO. 8

Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable?	What This Subpart Covers	Applicability Rationale
Y	**Watertube boiler** means a boiler in which water passes through the tubes and hot gases of combustion pass over the outside surfaces of the tubes.	
Y	**Wet scrubber** means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter and/or to absorb and neutralize acid gases, such as hydrogen chloride.	
Y	**Work practice standard** means any design, equipment, work practice, or operational standard, or combination thereof that is promulgated pursuant to section 112(h) of the CAA.	

PERMITTEE:

United States Sugar Corporation
111 Ponce DeLeon Avenue
Clewiston, FL 33440
Authorized Representative:
Mr. Neil Smith, V.P. of Sugar Processing Operations

Clewiston Sugar Mill and Refinery
Air Permit No. PSD-FL-333C
Project No. 0510003-037-AC
Facility ID No. 0510003
Permit Expires: March 31, 2008

FACILITY AND LOCATION

The United States Sugar Corporation operates the existing Clewiston sugar mill and refinery (SIC Nos. 2061 and 2062), which is located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. Sugarcane is harvested from nearby fields and transported to the mill by train. In the mill, sugarcane is cut into small pieces and processed in a series of presses to squeeze juice from the cane. The juice undergoes clarification, separation, evaporation, and crystallization to produce raw, unrefined sugar. In the refinery, raw sugar is decolorized, concentrated, crystallized, dried, conditioned, screened, packaged, stored, and distributed as refined sugar. The fibrous byproduct remaining from the sugarcane is called bagasse and is burned as boiler fuel to provide steam and heating requirements for the mill and refinery.

STATEMENT OF BASIS

Boiler 8 was recently constructed under Permit No. PSD-FL-333, as modified. This permitting action is a revision of the air construction permit to specifically address the following items: increases in the heat input and steaming rates; clarification of startup procedures; and modification of the biomass fuel handling system. The revised 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.

CONTENTS

Joseph Kahn, Director
Division of Air Resource Management

Effective Date

PROJECT DESCRIPTION

Boiler 8 (EU-028) is a new spreader-stoker boiler with a maximum heat input rate of 1185 MMBtu per hour. It will fire bagasse as the primary fuel and wood chips as an alternate or supplemental fuel. Distillate oil will be fired as a restricted alternate fuel for startup and supplemental uses. Air pollution control equipment includes a cyclone/electrostatic precipitator (ESP) combination to remove particulate matter and a selective non-catalytic reduction system (SNCR) to reduce nitrogen oxides. Good combustion design and operating practices will be used to minimize emissions of carbon monoxide, volatile organic compounds, and organic hazardous air pollutants. Low sulfur fuels (i.e., bagasse, wood chips, and distillate oil) will be used to minimize potential emissions of sulfuric acid mist and sulfur dioxide. Monitoring equipment will continuously monitor and record emissions of carbon monoxide and nitrogen oxides. To minimize fugitive particulate matter from the biomass handling system (EU-027), biomass conveyors will be enclosed and new landing zones installed on conveyor transfer points.

REGULATORY CLASSIFICATION

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

Title IV: The existing facility has 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 facility as defined in Rule 62-212.400, F.A.C.

NSPS: Boiler 8 is subject to the applicable New Source Performance Standards in Subpart Db of 40 CFR 60.

NESHAP: Boiler 8 is subject to the applicable National Emissions Standards for HAP in Subpart DDDDD of 40 CFR 63.

APPENDICES

The following Appendices are attached as part of this permit.

Appendix A. Citation Formats
Appendix B. General Conditions
Appendix C. Common Requirements
Appendix D. NSPS Provisions
Appendix E. Summary of Final BACT Determinations
Appendix F. Good Combustion and Operating Practices
Appendix G. Quarterly CO and NOx Emissions Report
Appendix H. Shakedown Period
Appendix I. **Incidental Amounts of On-Specification Used Oil with Bagasse**
Appendix J. NESHAP Provisions

RELEVANT DOCUMENTS

The applications, correspondence, and permits related to the following projects are considered relevant documents: original Project No. 0510003-021-AC (PSD-FL-333), revised Project No. 0510003-024-AC (PSD-FL-333A), Project No. 0510003-030-AC (PSD-FL-333B), and Project No. 0510003-037-AC (PSD-FL-333C). Relevant documents are not a part of this permit, but include information specifically related to this permitting action and are on file with the Department.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to PSD applications for permits to construct or modify emissions units 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. Copies of each application shall be submitted to the Compliance Authority.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resource Section of the Department's South District Office at 2295 Victoria Avenue, Suite 364, Fort Myers, Florida, 33901-3381.

3. Rule Citations: Appendix A of this permit explains the methods used to cite rules, regulations, and permits.

4. General Conditions: The permittee shall comply with the general conditions specified in Appendix B of this permit. [Rule 62-4.160, F.A.C.]

5. Common Requirements: The permittee shall comply with the common regulatory requirements specified in Appendix C of this permit. [Chapters 62-4, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.]

6. 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. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and Title 40 of the Code of Federal Regulations (CFR) adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. 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.]

7. Construction and Expiration: The permit expiration date includes sufficient time to complete construction, perform required testing, submit test reports, and submit an application for a Title V operation permit to the Department. Approval to construct shall become invalid for any of the following reasons: construction is not commenced within 18 months after issuance of this permit; construction is discontinued for a period of 18 months or more; or construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. In conjunction with an extension of the 18-month period to commence or continue construction (or to construct the project in phases), the Department may require the permittee to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for emissions units regulated by the project. For good cause, the permittee may request that this PSD air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, 62-210.300(1), and 62-212.400(12)(a), F.A.C.; 40 CFR 52.21(r)(2); 40 CFR 51.166(j)(4)]

8. 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.]

9. Source Obligation: At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. [Rule 62-212.400(12)(b), F.A.C.]

10. Modifications: 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. [Rule 62-4.030 and Chapters 62-210 and 62-212, F.A.C.]

11. Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation 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 to the appropriate Permitting Authority the application form, compliance test results, and such additional information as the Department may by law require. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

A. Boiler 8 (EU-028)

This section of the permit addresses the following new emissions unit.

ID	Emission Unit Description
028	*Description*: Boiler 8 will be a membrane wall boiler with balanced draft stoker, overfire air, rotating feeders, and pneumatic spreaders. It will be designed to generate superheated steam at 600 psig and 750° F for use in the sugar mill and refinery. *Fuels*: The primary fuel will be bagasse (SCC No. 1-02-011-01). Wood chips will be fired as an alternate or supplemental fuel (SCC No. 1-02-009-02). Distillate oil (SCC No. 1-02-005-01) containing no more than 0.05% sulfur by weight will be fired as a restricted alternate fuel for startup and supplemental uses. *Capacity*: The maximum continuous steam production is 575,000 pounds per hour based on a maximum heat input rate of 1077 MMBtu per hour (24-hour averages). *Controls*: Particulate matter is controlled by cyclone collectors followed by an electrostatic precipitator (ESP). Nitrogen oxides are reduced by a urea-based selective non-catalytic reduction (SNCR) system. The boiler design with good combustion and operating practices will be used to minimize emissions of carbon monoxide, volatile organic compounds, and organic hazardous air pollutants. Very low sulfur fuels will be used to minimize the potential for emissions of sulfuric acid mist and sulfur dioxide. *Stack Parameters*: The stack will be 13.0 feet in diameter (maximum) and 199 feet tall (minimum). Exhaust flue gas will exit the stack at the following approximate conditions: an exit temperature of 315° F and a volumetric flow rate of 395,000 acfm at 5.5% oxygen (270,000 dscfm at 7% oxygen). *CEMS*: Emissions of carbon monoxide and nitrogen oxides will be monitored and recorded by continuous emissions monitoring systems (CEMS).

{Permitting Note: In accordance with Rule 62-212.400, F.A.C., the Department established permit standards for Boiler 8 that represent the Best Available Control Technology (BACT) for emissions of nitrogen oxides (NOx), particulate matter (PM/PM10), sulfuric acid mist (SAM), sulfur dioxide (SO2), and volatile organic compounds (VOC). Based on a netting analysis that included emissions decreases resulting from the shut down of existing Boiler 3, the project did not require PSD preconstruction review for carbon monoxide (CO) emissions. The final BACT determinations are presented in Appendix E of this permit. Boiler 8 is also subject to the following applicable requirements: Rule 62-296.405, F.A.C. (fossil fuel fired steam generators with more than 250 MMBtu per hour of heat input); Rule 62-296.410, F.A.C. (carbonaceous fuel burning equipment); the federal New Source Performance Standards (NSPS) of Subpart Db (industrial boilers) in 40 CFR 60, which is adopted by reference in Rule 62-204.800(8), F.A.C.; and the federal National Emissions Standards for Hazardous Air Pollutants (NESHAP) of Subpart DDDDD (industrial boilers) in 40 CFR 63, which is adopted by reference in Rule 62-204.800(11), F.A.C.}

EQUIPMENT

1. Shutdown of Boiler 3: No later than ten (10) days after occurrence, the permittee shall provide written notification to the Compliance Authority of first fire in Boiler 8. Shakedown of the boiler is defined in Appendix H of this permit. During the authorized shakedown period:

   a. Boiler 8 may operate with the other existing boilers to ensure proper integration with the sugar mill and refinery. Any fuel oil fired in Boilers 1, 2, and 3 shall contain no more than 1.6% sulfur by weight.

   b. Boilers 3 and 8 may operate concurrently for no more than 90 individual days during which the combined steam production from Boilers 3 and 8 shall not exceed a daily average of 250,000 pounds per hour. After first fire and shakedown of Boiler 8, Boiler 3 shall be permanently shutdown prior to commencement of commercial operation of Boiler 8 or after completion of the crop season, whichever occurs first. For this facility, the sugarcane crop season is defined as October through April and the off-season is defined as May through September.

No later than ten (10) days after occurrence, the permittee shall provide written notification to the Compliance Authority of the permanent shutdown of Boiler 3 and of beginning commercial operation of Boiler 8. *{Permitting Note: Emissions decreases from the shutdown of Boiler 3 were used in the netting analysis to avoid PSD review of CO emissions for this project. The authorized shakedown period provides a reasonable period to start up the newly designed Boiler 8, test operations, and make necessary adjustments. A limited amount of concurrent operation is allowed because Boiler 8 is replacing Boiler 3 and must be fully tested during the crop season.}* [Design; Rule 62-212.400 (PSD), F.A.C.]

2. Construction of Boiler 8: The permittee is authorized to construct a balanced draft, membrane wall, spreader stoker boiler to generate superheated steam at design conditions of 600 psig and 750° F for use in the sugar mill and refinery. The design thermal efficiency is 62% and the maximum 1-hour steam production rate is 633,000 pounds per hour based on a maximum 1-hour heat input rate of 1185 MMBtu per hour. Rotating feeders, pneumatic spreaders, a traveling grate, and overfire air will be used to fire the primary fuel of bagasse and/or wood chips. Low NOx burners will be used to fire distillate oil as a restricted alternate fuel for startup and supplemental uses. Bottom ash will be removed to ash ponds by a submerged conveyor. Within 90 days of selecting the final design and vendor, the permittee shall submit the final primary design details of the proposed boiler. [Design]

3. Air Pollution Control Equipment: To comply with the standards of this permit, the permittee shall install the following air pollution control equipment.

   a. *Cyclone Collectors*: The permittee shall design, install, operate, and maintain a pre-control device prior to the electrostatic precipitator (ESP) to remove entrained sand and large particles in the flue gas. The purpose of the pre-control device is to prevent excessive equipment wear and overloading of the ESP. Two wet and one dry cyclone collectors are installed in parallel before the induced draft fan.

   b. *ESP*: The permittee shall design, install, operate, and maintain an electrostatic precipitator (ESP) to remove particulate matter from the flue gas exhaust and achieve the particulate matter standards specified in this permit. The ESP shall include an automated rapping system that can adjust rapping frequency and intensity to prevent re-entrainment of fly ash. The ESP shall be on line and functioning properly whenever bagasse and/or wood chips is fired.

   c. *SNCR*: The permittee shall design, install, operate, and maintain a urea-based selective non-catalytic reduction (SNCR) system to reduce nitrogen oxide emissions in the flue gas exhaust and achieve the nitrogen oxides emissions standards specified in this permit. The system shall include automated control of urea injection for at least three injection zones to respond to varying load and flue gas conditions. Urea injection rates and zones will be determined based on parameters such as the current injection rate, furnace temperature profile, fuels, steam load, oxygen level, carbon monoxide level, and nitrogen oxide emissions.

   Within 90 days of selecting the final equipment designs and vendors, the permittee shall submit the final primary design details for the proposed pollution controls. [Design; Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.]

PERFORMANCE REQUIREMENTS

4. Authorized Fuels: Boiler 8 shall fire bagasse as the primary fuel, wood chips as an alternate or supplemental fuel, and distillate oil as a restricted alternate fuel for startup and supplemental uses. Bagasse is the fibrous material remaining after sugarcane is milled. Only new No. 2 (or superior) distillate oil containing no more than 0.05% sulfur by weight shall be fired. In addition, incidental amounts of on-specification used oil commingled with bagasse may be fired in Boiler 8 in accordance with the requirements in Appendix I of this permit. [Design; Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.]

5. Boiler Capacities and Restrictions: The hours of operation are not restricted (8760 hours/year). The maximum continuous steam production capacity (24-hour average) is 575,000 pounds per hour based on a maximum heat input rate of 1077 MMBtu per hour (24-hour average). The total maximum heat input from the oil burners is 562 MMBtu per hour (4161 gallons/hour). Boiler 8 shall not exceed the following operational levels.

   a. 13,800,000 pounds of steam per day (equivalent to 575,000 pounds of steam per hour and 1077 MMBtu per hour, 24-hour averages);

   b. $3.6135 \times 10^{+09}$ pounds of steam per consecutive 12 months (equivalent to 6,767,100 MMBtu per year);

   c. 99,864 gallons of distillate oil per day (equivalent to 13,488 MMBtu per day); and

   d. 6,073,600 gallons of distillate oil per consecutive 12 months (equivalent to 819,936 MMBtu per year).

   {Permitting Note: The short-term restrictions form the basis of the Air Quality Analysis. The restriction on annual steam production is a surrogate for heat input and allowed the project to avoid PSD applicability for carbon monoxide emissions. The annual oil firing restriction results in an annual capacity factor of 10% or less, which avoids specific requirements in NSPS Subpart Db.} [Design; Rules 62-4.070(3), 62-212.400 (PSD), 62-210.200(PTE), F.A.C.; NSPS Subpart Db]

6. Good Combustion and Operating Practices: The permittee shall follow the good combustion and operating practices identified in Appendix F of this permit. [Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.]

EMISSIONS STANDARDS

{Permitting Note: See Appendix E of this permit for a summary of the final BACT determinations.}

7. Standards Based on Stack Tests: The following emission standards apply when firing bagasse, wood chips, distillate oil, or a combination of these fuels under normal operation at steady-state conditions. The mass emission rates (pounds per hour) are based on the maximum 24-hour heat input rate. Unless otherwise specified, compliance with these standards shall be based on the average of three test runs conducted under steady-state conditions at permitted capacity.

   a. *Ammonia Slip*: As determined by EPA Conditional Test Method CTM-027, ammonia slip shall not exceed 20 ppmvd @ 7% oxygen. [Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.]

   b. *Carbon Monoxide (CO)*: To the extent practicable, short term emissions of carbon monoxide shall be controlled by implementing the good combustion and operating practices identified in Appendix F. [Rules 62-4.070(3), F.A.C.]

   c. *Nitrogen Oxides (NOx)*: As determined by EPA Method 7E stack test, NOx emissions shall not exceed 0.14 lb/MMBtu and 150.8 pounds per hour. *{Permitting Note: This standard is an "initial demonstration standard" intended to show the capabilities of the SNCR system as designed. After the initial compliance test, subsequent compliance shall be demonstrated with the long-term CEMS-based standard specified in Condition 8b.}* [Rule 62-212.400 (PSD), F.A.C.]

   d. *Opacity*: As determined by EPA Method 9 observations or COMS, the stack opacity shall not exceed 20% based on a 6-minute average. [Rule 62-212.400 (PSD), F.A.C.]

   e. *Particulate Matter (PM/PM10)*: As determined by EPA Method 5 stack test, PM emissions shall not exceed 0.025 lb/MMBtu and 26.9 pounds per hour. [Rule 62-212.400 (PSD), F.A.C.; 40 CFR 63.7500]

   f. *Sulfur Dioxide (SO_2)*: As determined by EPA Method 6C stack test, SO_2 emissions shall not exceed 0.06 lb/MMBtu and 64.6 pounds per hour. *{Permitting Note: This emission standard is also a surrogate for sulfuric acid mist (SAM) emissions.}* [Rule 62-212.400 (PSD), F.A.C.]

g. *Volatile Organic Compounds (VOC)*: As determined by EPA Methods 18 and 25A stack tests, VOC emissions shall not exceed 0.05 lb/MMBtu and 53.9 pounds per hour measured as propane. For this permit, "VOC" emissions shall be defined as the total hydrocarbons (THC) measured by EPA Method 25A less the sum of the methane and ethane emissions as measured by EPA Method 18 on a concurrent sample. Alternatively, the permittee may elect to assume that all THC are regulated VOC emissions. [Rule 62-212.400 (PSD), F.A.C.]

h. *Hydrogen Chloride (HCl)*: As determined by EPA Method 26 or 26A stack test, HCl emissions shall not exceed 0.02 lb/MMBtu of heat input. For a summary of other applicable NESHAP requirements, see Appendix J of this permit. [40 CFR 63.7500]

i. *Mercury (Hg)*: As determined by the fuel analysis requirements specified in §63.7521 and Table 6 of Subpart DDDDD in 40 CFR 63, mercury emissions shall not exceed 0.000003 lb/MMBtu of heat input. For a summary of other applicable NESHAP requirements, see Appendix J of this permit. [40 CFR 63.7521]

8. Standards Based on CEMS: The following emission standards apply when firing bagasse, wood chips, distillate oil, or a combination of these fuels and under all load conditions.

   a. *Carbon Monoxide (CO)*:

      1) As determined by CEMS data, CO emissions shall not exceed 400 ppmvd @ 7% oxygen based on a 30-day rolling average. Carbon monoxide emission levels must be maintained below this work practice standard at all times except during periods of startup, shutdown, malfunction, and when the boiler or process heater is operating at less than 50% of rated capacity. For purposes of calculating data averages, data recorded during the following periods must not be used: periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when the boiler is operating at less than 50% of its rated capacity. All the data collected during all other periods must be used in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements. [40 CFR 63.7500(1), 63.7525(a)(6), 63.7540(a)(10) and Table 1 of Subpart DDDDD]

      2) As determined by CEMS data, CO emissions shall not exceed 1285 tons during any consecutive 12 months including periods of startup, shutdown, and malfunction. *{Permitting Note: Compliance with the annual mass emission standard ensures that the project is not subject to PSD preconstruction review for CO emissions.}* [Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.]

   b. *Nitrogen Oxides (NOx)*: As determined by CEMS data, NOx emissions shall not exceed 0.14 lb/MMBtu based on a 30-day rolling average. [Rule 62-212.400 (PSD), F.A.C.]

   {Permitting Note: Appendix H of this permit specifies additional requirements regarding the initial shakedown period and initial demonstration of compliance for the CEMS-based standards.}

STARTUP, SHUTDOWN, AND MALFUNCTION REQUIREMENTS

9. Malfunction Notifications: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Compliance Authority in accordance with the following. If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately (within one working day) notify the Compliance Authority. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not

release the permittee from any liability for failure to comply with Department rules. If requested by the Compliance Authority, the owner or operator shall submit a quarterly written report describing the malfunction. [Rules 62-210.700(6) and 62-4.130, F.A.C.]

10. Excess Emissions - Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C.]

11. Excess Emissions - Allowed: Unless otherwise specified by this permit, excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

12. Excess Emissions – CO, NOx, and Opacity Requirements: As provided by the authority in Rule 62-210.700(5), F.A.C., the following conditions supersede the provisions in Rule 62-210.700(1), F.A.C.

    a. *CO Emissions*: All valid CO CEMS data collected (including startup, shutdown, and malfunction) shall be used to determine compliance with the CO mass emission rate standard (tons per consecutive 12-months, rolling total). Compliance with the 30-day rolling CO standard shall be in accordance with the NESHAP requirements.

    b. *NOx Emissions*: NOx CEMS data collected during startup, shutdown, malfunction, and authorized periods of uncontrolled NOx monitoring may be excluded from the determination of compliance with the 30-day rolling emissions standard, provided:

        1) Best operational practices are used to minimize emissions;

        2) For startups and shutdowns, the SNCR system has not yet attained proper operating conditions and is not functional;

        3) For malfunctions, excluded data shall not exceed two hours in any 24-hour period (eight 15-minute CEMS blocks or quadrants of an hour). The permittee shall notify the Compliance Authority within one working day of detecting the malfunction; and

        4) For two hours each month, the permittee may operate the boiler without the SNCR system in order to collect uncontrolled NOx emissions data with the CEMS. For purposes of collecting uncontrolled NOx emissions data to adjust the SNCR system, excluded data shall not exceed two, 1-hour values during any calendar month. *{Permitting Note: Based on the final design specifications, uncontrolled NOx emissions are expected to be 0.30 lb/MMBtu. Uncontrolled NOx data collected during these periods will be used to adjust the SNCR system as necessary.}*

    c. *Opacity*: During startup and shutdown, the stack opacity shall not exceed 20% opacity based on a 6-minute block average, except for one 6-minute block per hour that shall not exceed 27% opacity. This alternate opacity standard does not impose a separate annual testing requirement.

    CO and NOx CEMS data excluded due to startup, shutdown, malfunction, or authorized periods of uncontrolled NOx monitoring shall be summarized and reported in the "Quarterly CO and NOx Emissions Report" required by this permit. *{Permitting Note: Allowances for nitrogen oxides are provided during specific periods in which the control device may not be fully operational because compliance is continuously demonstrated by CEMS data. Similarly, an alternate standard is identified for opacity during startup and shutdown because compliance is readily observable. As sulfur dioxide emissions are a function of the fuel sulfur, it is not expected that startups or shutdowns would cause excess emissions of this pollutant. It is possible that emissions of particulate matter and volatile organic compounds could exceed the permit standards in terms of "lb/MMBtu" during startups and*

shutdowns. However, the Department has good reason to believe that the mass emission rates of these pollutants (lb/hour) will not exceed the specified standards due to reduced loads and fuel firing rates. In any case, the specified test methods are generally applicable only during steady-state operation. Therefore, no alternate emissions standards are specified and compliance shall determined by the test methods and procedures specified in this permit. Compliance with the NESHAP Subpart DDDDD provisions for CO emissions shall be determined in accordance with the federal regulations. The Department's rules and permits cannot waive or supersede a federal requirement.}

TESTING REQUIREMENTS

13. Boiler Performance Test: Within 180 days of first fire on bagasse, the permittee shall conduct a test to determine the boiler thermal efficiency. The test shall be conducted when firing only bagasse and shall be at least three hours long. The boiler steam conditions and production rate shall be monitored and recorded during the test. The bagasse fuel firing rate (tons per hour) shall be calculated and recorded based on the steam parameters. A sample of the as-fired bagasse shall be analyzed for the heating value (Btu/lb) and moisture content (%). The actual heat input rate (MMBtu/hour) shall be determined using two methods: (a) steam parameters with enthalpies and the measured thermal efficiency, and (b) steam parameters with enthalpies and the design boiler thermal efficiency of 62%. Results of the test shall be submitted to the Department within 45 days of completion. The boiler thermal efficiency test shall be repeated during the 12-month period prior to renewal of any operation permit. If the tested boiler thermal efficiency is less than 90% of the design boiler thermal efficiency, then the tested thermal efficiency shall be used in any future calculations of the heat input rate until a new test is conducted. [Rule 62-4.070(3), F.A.C.]

14. Initial and Annual Stack Tests: In accordance with test methods specified in this permit, Boiler 8 shall be tested to demonstrate initial compliance with the emission standards for ammonia slip, NOx, PM, SO_2, VOC, and opacity. The tests shall be conducted within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup. Subsequent compliance stack tests for ammonia slip, PM, SO_2, VOC, and opacity shall also be conducted during each federal fiscal year (October 1st to September 30th). Tests shall be conducted between 90% and 100% of the maximum 24-hour continuous heat input rate when firing only bagasse or bagasse with wood chips. CO CEMS data shall be reported for each run of the required tests for NOx and VOC emissions. NOx CEMS data shall be reported for each run of the required tests for ammonia slip. Also, CEMS data for NOx emissions may be used to demonstrate compliance with the initial stack test standards for this pollutant. The Department may require the permittee to repeat some or all of these initial stack tests after major replacement or major repair of any air pollution control or process equipment.

    Permit No. PSD-FL-333C modified the maximum heat input and steaming rates for Boiler 8. Pursuant to Rule 62-297.310(2), F.A.C., operation of Boiler 8 is limited to 110% of the latest test rate until a new test is conducted within 90% to 100% of the revised maximum 24-hour heat input rate that demonstrates compliance with the emissions standards for ammonia slip, NOx, PM, SO_2, VOC, and opacity. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

    {Permitting Note: All initial tests must be conducted at permitted capacity, which is defined as 90% to 100% of the maximum 24-hour heat input rate; otherwise, this permit will be modified to reflect the true maximum capacity as constructed.} [Rules 62-212.400 (PSD) and 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]

15. Test Methods: Any required stack tests shall be performed in accordance with the following methods.

EPA Method	Description of Method and Comments
CTM-027	Measurement of Ammonia Slip *{Note: This is an EPA conditional test method. The minimum detection limit shall be 1 ppm.}*

EPA Method	Description of Method and Comments
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content *{Notes: Methods shall be performed as necessary to support other methods.}*
6C	Measurement of SO_2 Emissions (Instrumental)
7E	Measurement of NOx Emissions (Instrumental)
9	Visual Determination of the Opacity
10	Measurement of Carbon Monoxide Emissions (Instrumental) *{Note: The CO test method shall be based on a continuous sampling train.}*
18	Measurement of Gaseous Organic Compound Emissions (Gas Chromatography) *{Note: EPA Method 18 may be used (optional) concurrently with EPA Method 25A to deduct emissions of methane and ethane from the THC emissions measured by Method 25A.}*
19	Calculation Method for NOx, PM, and SO_2 Emission Rates
25A	Measurement of Gaseous Organic Concentrations (Flame Ionization)

Method CTM-027 is published on EPA's Technology Transfer Network Web Site at "http://www.epa.gov/ttn/emc/ctm.html". The other methods are specified in Appendix A of 40 CFR 60, adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

MONITORING REQUIREMENTS

16. Steam Parameters: In accordance with the manufacturer's recommendations, the permittee shall install, calibrate, operate and maintain continuous monitoring and recording devices for the following parameters: steam temperature (° F), steam pressure (psig), and steam production rate (lb/hour). Records shall be maintained on site and made available upon request. [Design; Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.]

17. Fuel Monitoring: The permittee shall monitor each fuel in accordance with the following provisions. [Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.]

    a. *Distillate Oil*: In accordance with the manufacturer's recommendations, the permittee shall install, calibrate, operate and maintain an oil flow meter with integrator. At the end of each day that oil is fired, the oil flow meter integrator shall be read and recorded in a written (or electronic) log. Initial compliance with the distillate oil sulfur limit shall be demonstrated by taking a sample, analyzing the sample for fuel sulfur, and reporting the results to the Compliance Authority. During each federal fiscal year (October 1st to September 30th), the permittee shall take a sample from the storage tank and analyze for the fuel sulfur content. Sampling for the fuel oil sulfur content shall be conducted in accordance with ASTM D4057-88, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, and one of the following test methods for sulfur in petroleum products: ASTM D129-91, ASTM D1552-90, ASTM D2622-94, or ASTM D4294-90 (or more recent versions when available). For each delivery of distillate oil, the permittee shall maintain a permanent record of each certified fuel sulfur analysis provided by the fuel vendor. Records shall specify the date of delivery, the gallons delivered, the fuel sulfur content and test method.

    b. *Bagasse/Wood Chips*: Representative samples of bagasse and wood chips (if stored on site) shall be taken each calendar quarter and analyzed for the following: heating value (Btu/lb, as fired and dry); moisture content (percent by weight); sulfur content (percent by weight, dry); and ash content (percent by weight, dry). Records of the results of these tests shall be maintained on site and made available upon request.

18. CEMS: The permittee shall install, calibrate, operate and maintain continuous emission monitoring systems (CEMS) to measure and record concentrations of CO, NOx, and O_2 in the exhaust of Boiler 8 in a manner sufficient to demonstrate continuous compliance with the CEMS standards specified in this permit. The permittee shall notify the Compliance Authority within one working day of discovering emissions in excess of a CEMS standard subject to the specified averaging period. Each monitoring system shall be installed, calibrated, and properly functioning prior to the initial stack tests.

    a. *CO Monitors.* The CO monitor shall be installed, operated and maintained in accordance with the applicable requirements of NESHAP Subpart DDDDD in 40 CFR 63.

    b. *NOx Monitors.* The NOx monitor shall be installed to determine emissions from the boiler stack and shall meet the requirements of Performance Specification 2 in Appendix B of 40 CFR 60. The required RATA tests shall be performed using EPA Method 7E in Appendix A of 40 CFR 60. Quality assurance procedures shall conform to the requirements of Appendix F in 40 CFR 60. The monitor shall have a maximum span value of 250 ppmvd.

    c. *Diluent Monitors.* An oxygen monitor shall be installed at each CO and NOx monitor location to correct measured CO and NOx emissions to the required oxygen concentrations. The O_2 monitor shall meet the requirements of Performance Specification 3 in Appendix B of 40 CFR 60. The required RATA tests shall be performed using EPA Method 3A in Appendix A of 40 CFR 60. Quality assurance procedures shall conform to the requirements of Appendix F in 40 CFR 60.

    d. *1-Hour Averages (NOx).* 1-hour block averages shall begin at the top of each hour. Each 1-hour average shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement, a 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, the 1-hour average is not valid. The permittee shall use all valid measurements or data points collected during an hour to calculate the 1-hour averages. The CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour. If the CEMS measures concentration on a wet basis, the CEMS shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, the owner or operator may develop through manual stack test measurements a curve of moisture contents in the exhaust gas versus load for each allowable fuel, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Final results shall be recorded in terms of "lb/MMBtu".

    e. *NESHAP Averaging (CO).* CO emissions shall be monitored and recorded pursuant to the applicable requirements in Subpart DDDDD of 40 CFR 63.

    f. *30-Day Averages (NOx).* The 30-day rolling average shall be determined by averaging all 1-hour averages for 30 successive boiler operating days. A boiler operating day begins and ends at midnight of each day and includes any day that fuel is combusted. Final results shall be recorded in terms of "lb/MMBtu".

    g. *Annual Averages (CO).* For each day (midnight to midnight), the CEMS shall record the total CO mass emissions rate (pounds per day). The 12-month rolling total shall be determined by summing the daily CO mass emission rates (pounds per day) for the 12-month period. The result shall be reported in terms of "tons per consecutive 12 months".

    h. *Data Exclusion.* Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall monitor and record emissions during all operations including episodes of startups, shutdowns, and malfunctions. CEMS emissions data recorded during some of

these episodes may be excluded from the corresponding compliance demonstration subject to the provisions of Condition No. 12 in this section. All periods of data excluded shall be consecutive for each such episode. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable.

i. *Availability.* Monitor availability for each CEMS shall be 95% or greater in any calendar quarter. The quarterly excess emissions report shall be used to demonstrate monitor availability. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Department's Compliance Authority.

[Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.; NESHAP Subpart DDDDD]

19. Alternate Opacity Monitoring Plan: Based on written approval from EPA Region 4, the permittee shall employ the following alternate sampling procedures in lieu of the requirement to install and operate a COMS. The procedures apply to the firing of distillate oil.

    a. A certified EPA Method 9 observer shall perform a twelve-minute opacity test once per daylight shift during the period that the highest distillate oil firing rate occurs.

    b. A certified EPA Method 9 observer shall perform a twelve-minute opacity test when the boiler achieves the normal operational load after a cold boiler startup with distillate oil.

    c. Required observations shall be made in accordance with the provisions of EPA Method 9.

    d. The observer shall maintain a log, which includes all of the information required by EPA Method 9 for each set of observations and the distillate oil firing rate (gph) during the observations.

    e. Within 30 days after each calendar quarter, the permittee shall submit a copy of the observation log to the Compliance Authority for each observation performed during the quarter. The information shall also include a summary of the fuel usage and fuel analysis to verify that Boiler 8 has not exceeded the 10% annual capacity factor limit.

    f. The permittee shall follow the boiler manufacturer's maintenance schedule and procedures to assure that serviceable components are well maintained.

    g. If Boiler 8 exceeds the annual capacity factor limit of 10% for the combustion of distillate oil or is unable to regularly comply with the applicable opacity standard in §60.43b(f) when firing distillate oil, the permittee shall install and operate a COMS in accordance with the provisions of NSPS Subparts A and Db to demonstrate compliance with the opacity standards of the permit.

    {Permitting Note: In a letter dated September 22, 2003, EPA Region 4 approved the above Alternate Opacity Monitoring Plan.} [Applicant Request; Rule 62-4.070(3), F.A.C.; §60.48b(a)]

20. ESP Monitoring Plan: To ensure proper functioning and effective performance of the electrostatic precipitator (ESP), the permittee shall submit a final ESP Monitoring Plan in accordance with the following requirements.

    a. *Testing Program*: Within 90 days of the initial compliance stack tests, the permittee shall complete a testing program designed to establish the minimum total secondary power input to the ESP that indicates effective performance.

    b. *Monitoring Provisions*: As part of the application for a Title V air operation permit, the permittee shall submit a final ESP Monitoring Plan that includes the following:

1) Based on the testing program, the plan shall specify the minimum total ESP secondary power input requirement (kW, 3-hour block average) that indicates effective performance.
2) The plan shall identify procedures to continuously monitor the ESP secondary voltage and secondary current, which will be used to calculate and record the total ESP secondary power input.
3) Continuous measurements shall be averaged into 15-minute blocks, which in turn will be averaged into 1-hour and 3-hour block averages beginning at the top of each hour, excluding monitoring malfunctions, associated repairs, and required QA/QC activities.
4) Excursions below the minimum level specified require investigation and corrective action.
5) The proposed plan shall incorporate appropriate QA/QC requirements to ensure valid data.

[Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.; 40 CFR 63.7500]

21. SNCR Urea Injection: In accordance with the manufacturer's specifications, the permittee shall install, calibrate, operate and maintain a flow meter to measure and record the urea injection rate for the SNCR system. The permittee shall document the general range of urea flow rates required to meet the NOx standard over the range of load conditions by comparing NOx emissions with urea flow rates. During NOx monitor downtimes or malfunctions, the permittee shall operate at a urea flow rate that is consistent with the documented flow rate for the given load condition. [Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.]

22. Cyclones: In accordance with the manufacturer's recommendations, the permittee shall install, calibrate, operate and maintain the following equipment: flow meter to monitor the water flow rate (gph) for each wet cyclone and a manometer (or equivalent) to monitor the pressure drop (inches of water) across each cyclone. At least once each 8-hour work shift, the flow rate and pressure drop shall be observed and recorded in a written log. [Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.; 40 CFR 63.7500]

RECORDS AND REPORTS

23. Stack Test Reports: In addition to the information required in Rule 62-297.310(8), F.A.C., each stack test report shall also include the following information: steam production rate (lb/hour), heat input rate (MMBtu/hour), calculated bagasse firing rate (tons/hour), wood chip firing rate (tons/hour), and emission rates (lb/MMBtu and ppmvd @ 7% oxygen). [Rule 62-4.070(3), F.A.C.]

24. Monthly Operations Summary: By the tenth calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for the previous month of operation: hours of operation, distillate oil consumption, pounds of steam per month, and the updated 12-month rolling totals for each of these operating parameters. The Monthly Operations Summary shall be maintained on site and made available for inspection when requested by the Department. [Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.]

25. Quarterly CO and NOx Emissions Report: Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority summarizing CO and NOx emissions including periods of startups, shutdowns, malfunctions, authorized uncontrolled NOx emissions monitoring and CEMS systems monitor availability for the previous quarter. If CO or NOx CEMS data is excluded from a compliance determination during the quarter due to a malfunction, the permittee shall include a description of the malfunction, the actual emissions recorded, and the actions taken to correct the malfunction. See Appendix G of this permit for the reporting format. [Rules 62-4.070(3), 62-4.130, and 62-210.400(5)(c), F.A.C.]

FEDERAL REQUIREMENTS

26. NSPS Subpart Db: Boiler 8 is subject to the applicable New Source Performance Standards of Subpart Db

in 40 CFR 60 for "Industrial-Commercial-Institutional Steam Generating Units". Appendix D of this permit summarizes these provisions.

27. NESHAP Subpart DDDDD: Boiler 8 is subject to the applicable National Emissions Standards for Hazardous Air Pollutants of Subpart DDDDD in 40 CFR 63 for "Industrial/Commercial/Institutional Boilers and Process Heaters". Appendix J of this permit summarizes these provisions.

B. Biomass Handling System (EU-027)

This section of the permit addresses the following new emissions unit.

ID	Emission Unit Description
027	Biomass Handling System

EQUIPMENT

1. Modification of Existing System: The permittee is authorized to modify the existing biomass handling system to accommodate the additional biomass required for Boiler 8. These changes include: expanding conveyor belt C4; adding a new conveyor belt to feed biomass to Boiler 8; eliminating transfer belt conveyor No. 2 and increasing the biomass throughput of the handling system. Biomass means bagasse and/or wood chips. [Design; Rule 62-212.400 (PSD), F.A.C.]

2. Equipment: To minimize fugitive particulate matter, biomass conveyors shall be covered and new landing zones shall be installed on conveyor transfer points. The existing dust collectors for the biomass handling system will be removed. The conveyor system will now be completely covered or enclosed except for the transfer points to/from the bagasse stockpile and the point associated with conveying bagasse from conveyor C9A to C9B in the drying mill. The existing bagacillo system pneumatically collects a small fraction of bagasse from the conveyor system and transfers fine particles suspended in the gas stream to the Boiling House. The bagacillo cyclone separates particles from the gas stream, which are used as part of the cake material on the vacuum filters. The bagacillo system is an existing, unregulated emissions unit.

   [Design; Application No. 0510003-037-AC]

ATTACHMENT USSC-EU5-IV3

ALTERNATIVE METHOD OF OPERATION

ATTACHMENT USSC-EU5-IV3

ALTERNATIVE METHODS OF OPERATION

U.S. Sugar Clewiston Boiler No. 8 is permitted to fire carbonaceous fuel (bagasse and wood chips) as the primary fuel and distillate fuel oil as a restricted alternate fuel for startup and supplemental use. The boiler has a maximum steam production capacity of 575,000 pounds per hour based on a maximum heat input rate of 1,077 million British thermal units per hour (24-hour average). The sulfur content of distillate fuel oil is limited to 0.05 percent by weight. The operating hours of the boiler are not limited (8,760 hours per year). Bagasse and wood chips can include incidental amounts of on-specification used oil.

REVISED TITLE V APPLICATION PAGES

SUGAR PROCESSING OPERATIONS

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 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 for air permit. 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 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/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. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** 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 construction permitting and insignificant emissions units 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.

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: **Sugar Processing Operations**

3. Emissions Unit Identification Number: **015, 016, 017, 018, 019, 020, 021, 022, 029**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A			**20**	☐ Yes ☒ No

9. Package Unit:
   Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:
    This emission unit represents the sugar processing operation (refinery), which produces bulk and bagged sugar. For a list of sources, see Attachment USSC-EU6-A11.

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
The emissions from the VHP sugar dryer, white sugar dryer, vacuum systems, conditioning silos, bins and packaging operations are controlled with baghouses. There are a total of 11 baghouses.

The emissions from the granular carbon regeneration furnace are controlled with a direct flame afterburner and a wet venturi/impingement plate scrubber system.

The emissions from the White Sugar Dryer No. 2 are controlled with 4 high efficiency cyclones followed by a wet scrubber.

2. Control Device or Method Code(s): **018, 053, 054, 055, 099**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **730,000 TPY of refined sugar packaged**	
2. Maximum Production Rate: **803,000 TPY of refined sugar loaded out**	
3. Maximum Heat Input Rate: million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: **24** hours/day **52** weeks/year	**7** days/week **8,760** hours/year

6. Operating Capacity/Schedule Comment:
Maximum process rate refers to refined sugar packaged in refinery. Maximum daily rate is 2,000 tons per day. Maximum production rate refers to bulk and bagged refined sugar loaded out from this facility. Maximum daily rate is 2,250 tons per day. Permit No. 0510003-038-AC/PSD-FL-346A.

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: **Sugar Refinery**	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **See Attachment USSC-EU6-A11.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **H**	6. Stack Height: **80** feet	7. Exit Diameter: **7.0 × 6.0** feet
8. Exit Temperature: **90°F**	9. Actual Volumetric Flow Rate: **90,000** acfm	10. Water Vapor: **4 %**
11. Maximum Dry Standard Flow Rate: **78,000** 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 represent White Sugar Dryer No. 2 discharge vent. See Attachment USSC-EU6-A11 for a list of all stacks and their parameters in this emissions unit.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type): **Food and Agriculture; Sugar Cane Processing; General**		
2. Source Classification Code (SCC): **3-02-015-01**	3. SCC Units: **Tons Produced**	
4. Maximum Hourly Rate: **100**	5. Maximum Annual Rate: **803,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **Maximum hourly and annual rates refer to the amount of refined sugar produced by the fluidized bed drying system and packaged or loaded via the bulk shipment facility. Maximum daily production limited to 2,250 tons per day. Permit No. 0510003-038-AC/PSD-FL-346A.**		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): **Food and Agriculture; Sugar Cane Processing; Other Not Classified**		
2. Source Classification Code (SCC): **3-02-015-99**	3. SCC Units: **Tons Processed**	
4. Maximum Hourly Rate: **85**	5. Maximum Annual Rate: **730,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **Maximum hourly rate based on 2,000 TPD. Rates refer to the amount of refined sugar that could be processed through packaging operations. Permit No. 0510003-038-AC/PSD-FL-346A.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type): **In-Process Fuel Use; Distillate Oil; General**		
2. Source Classification Code (SCC): **3-90-005-89**	3. SCC Units: **Thousand Gallons Burned**	
4. Maximum Hourly Rate: **0.09**	5. Maximum Annual Rate: **788.4**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **135**
10. Segment Comment: **Maximum rates refer to the amount of No. 2 fuel oil burned in the granular carbon regeneration furnace (GCRF) and afterburner.**		

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:		

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
Particulate Matter - PM	018	054	EL
Particulate Matter - PM_{10}	018	054	EL
Volatile Organic Compounds - VOC	099	053	EL
SO_2	053	055	EL
NO_x			NS
CO			NS

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **19.6** lb/hour **85.7** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **19.6 lb/hr** Reference: **See Attachment USSC-EU6-F1.10a**	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: ☐ 5 years ☒ 10 years

10. Calculation of Emissions:

19.57 lb/hr x 8,760 hr/yr ÷ 2000 lb/ton = 85.7 TPY

See Attachment USSC-EU6-F1.10a.

11. Pollutant Potential/Estimated Fugitive Emissions Comment:

Based on total emissions from the Sugar Processing Operations and Permit No. 0510003-038-AC/PSD-FL-346A.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.63 lb/hr**	4. Equivalent Allowable Emissions: **1.63** lb/hour **7.12** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to VHP Sugar Dryer (EU 015) (Point ID S-11). As a surrogate parameter for PM, VE Must be less than 5% opacity.**	

Allowable Emissions Allowable Emissions 2 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.43 lb/hr**	4. Equivalent Allowable Emissions: **1.43** lb/hour **6.28** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to existing White Sugar Dryer No. 1 (EU 016) (Point ID S-10). As a surrogate parameter for PM, VE must be less than 5% opacity.**	

Allowable Emissions Allowable Emissions 3 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.7 lb/hr**	4. Equivalent Allowable Emissions: **0.70** lb/hour **3.07** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Granular Carbon Regeneration Furnace (EU 017) (Point ID S-12).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 4 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **15 lb/hr**	4. Equivalent Allowable Emissions: **15** lb/hour **65.7** tons/year
5. Method of Compliance: **EPA Method 5**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-038-AC/PSD-FL-346A. Applies to new White Sugar Dryer No. 2 (EU 029) (Point ID S-13).**	

Allowable Emissions Allowable Emissions 5 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.19 lb/hr**	4. Equivalent Allowable Emissions: **0.19** lb/hour **0.84** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Vacuum Systems (EU 018). As a surrogate parameter for PM, VE must be less that 5% opacity (Point IDs S-1, S-2, S-3).**	

Allowable Emissions Allowable Emissions 6 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.17 lb/hr**	4. Equivalent Allowable Emissions: **0.17** lb/hour **0.74** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Conditioning Silos (EU 019) (Point IDs S-7, S-8, S-9).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions **7** of **8**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.25 lb/hr**	4. Equivalent Allowable Emissions: **0.25** lb/hour **1.07** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Screening and Distribution (EU 020) (Point IDs S-5, S-6). As a surrogate parameter for PM, VE must be less than 5% opacity.**	

Allowable Emissions Allowable Emissions **8** of **8**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.21 lb/hr**	4. Equivalent Allowable Emissions: **0.21** lb/hour **0.90** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Packing Baghouse (EU 022) (Point ID S-4). As a surrogate parameter for PM, VE must be less than 5% opacity.**	

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.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **8.71** lb/hour **38.11** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference:	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: ☐ 5 years ☒ 10 years
10. Calculation of Emissions: **See Attachment USSC-EU6-F1.10b.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.63 lb/hr**	4. Equivalent Allowable Emissions: **1.63** lb/hour **7.12** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to VHP Sugar Dryer (EU 015) (Point ID S-11). As a surrogate parameter for PM, VE Must be less than 5% opacity.**	

Allowable Emissions Allowable Emissions 2 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.43 lb/hr**	4. Equivalent Allowable Emissions: **1.43** lb/hour **6.28** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to existing White Sugar Dryer No. 1 (EU 016) (Point ID S-10). As a surrogate parameter for PM, VE must be less than 5% opacity.**	

Allowable Emissions Allowable Emissions 3 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.63 lb/hr**	4. Equivalent Allowable Emissions: **0.63** lb/hour **2.76** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Granular Carbon Regeneration Furnace (EU 017) (Point ID S-12).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 4 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **4.20 lb/hr / 0.005 gr/dscf**	4. Equivalent Allowable Emissions: **4.20** lb/hour **18.38** tons/year
5. Method of Compliance: **EPA Method 201A**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit limit. Applies to White Sugar Dryer No. 2 (EU 029) (Point ID S-13). Permit No. 0510003-038-AC/PSD-FL-346A.**	

Allowable Emissions Allowable Emissions 5 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.19 lb/hr**	4. Equivalent Allowable Emissions: **0.19** lb/hour **0.84** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Vacuum Systems (EU 018) (Point IDs S-1, S-2, S-3). As a surrogate parameter for PM, VE must be less that 5% opacity.**	

Allowable Emissions Allowable Emissions 6 of 8

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.17 lb/hr**	4. Equivalent Allowable Emissions: **0.17** lb/hour **0.74** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Conditioning Silos (EU 019) (Point IDs S-7, S-8, S-9).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions **7** of **8**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.25 lb/hr**	4. Equivalent Allowable Emissions: **0.25** lb/hour **1.07** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Screening and Distribution (EU 020) (Point IDs S-5, S-6). As a surrogate parameter for PM, VE must be less than 5% opacity.**	

Allowable Emissions Allowable Emissions **8** of **8**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.21 lb/hr**	4. Equivalent Allowable Emissions: **0.21** lb/hour **0.90** tons/year
5. Method of Compliance: **EPA Method 5 or DEP Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Packing Baghouse (EU 022) (Point ID S-4). As a surrogate parameter for PM, VE must be less than 5% opacity.**	

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.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **4.42** lb/hour **19.38** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference: **Vendor Data**	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: ☐ 5 years ☒ 10 years

10. Calculation of Emissions:

See Attachments USSC-EU6-F1.10c and USSC-EU6-F.10d.

9. Pollutant Potential/Estimated Fugitive Emissions Comment:

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **1.0 lb/hr**	4. Equivalent Allowable Emissions: **1.0** lb/hour **4.38** tons/year
5. Method of Compliance: **EPA Method 25A and 18.**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Granular Carbon Regeneration Furnace only. See Attachment USSC-EU6-F1.10c.**	

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: **15.0 tons/yr**	4. Equivalent Allowable Emissions: **3.42** lb/hour **15.0** tons/year
5. Method of Compliance: **Track alcohol usage.**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Alcohol Usage. See Attachment USSC-EU6-F1.10d.**	

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.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.64** lb/hour **2.80** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.05% S fuel** Reference: **Permit Limits**	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: ☐ 5 years ☒ 10 years

10. Calculation of Emissions:

Fuel burning:
90 gal/hr x 7.1 lb/gal x 0.05 percent S x 2 lb SO_2/lb S = 0.64 lb/hr

9. Pollutant Potential/Estimated Fugitive Emissions Comment:

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **0.05% S fuel**	4. Equivalent Allowable Emissions: **0.64** lb/hour **2.80** tons/year
5. Method of Compliance: **Fuel analysis**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to Granular Carbon Regeneration Furnace only (EU 017).**	

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):	

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: ☐ Rule ☒ Other
3. Allowable Opacity: Normal Conditions: **5** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **DEP Method 9**	
5. Visible Emissions Comment: **Permit No. 0510003-010-AC/PSD-FL-272A. Applies to refinery and dryer baghouses.**	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☐ Rule ☒ Other
3. Allowable Opacity: Normal Conditions: **10** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **DEP Method 9**	
5. Visible Emissions Comment: **Applies to Granular Carbon Regeneration Furnace (Permit No. 0510003-010-AC/PSD-FL-272A) and White Sugar Dryer No. 2 (0510003-038-AC/PSD-FL-346A).**	

EMISSIONS UNIT INFORMATION
Section [6]
Sugar Processing Operations

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor **1** of **3**

1. Parameter Code: **TEMP**	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Temperature of afterburner on Granular Carbon Regeneration Furnace.**	

Continuous Monitoring System: Continuous Monitor **2** of **3**

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement: **500 gpm, minimum, 3-hour block avg.**	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitoring of wet scrubber water recirculation rate (gpm). Permit No. 0510003-038-AC/PSD-FL-346A.**	

H. CONTINUOUS MONITOR INFORMATION

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

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

1. Parameter Code: **PRS**	2. Pollutant(s):
3. CMS Requirement: **8 inches H_2O minimum, 3-hour block avg.** ☐ Rule ☒ Other	
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
8. Continuous Monitor Comment: **Monitoring of pressure differential across the wet scrubber (inches of water column). Permit No. 0510003-038-AC/PSD-FL-346A.**	

Continuous Monitoring System: Continuous Monitor _ of _

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☐ Other	
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
9. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION
Section [6]
Sugar Processing Operations

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)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date **June 2006**

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)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date **June 2006**

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)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date **June 2006**

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)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ 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)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☒ Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested: **Feb. 2007: PM; May 2006/Feb. 2007: PM_{10}**
   ☐ To be Submitted, Date (if known): _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ 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
   ☐ Attached, Document ID: _____ ☒ Not Applicable

EMISSIONS UNIT INFORMATION
Section [6]
Sugar Processing Operations

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))
   ☐ Attached, Document ID: _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.)
   ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☐ Attached, Document ID: _____ ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements
   ☒ Attached, Document ID: **USSC-EU6-IV1** ☐ Not Applicable
2. Compliance Assurance Monitoring
   ☒ Attached, Document ID: **CAM Plan** ☐ Not Applicable
3. Alternative Methods of Operation
   ☐ Attached, Document ID: _____ ☒ Not Applicable
4. Alternative Modes of Operation (Emissions Trading)
   ☐ Attached, Document ID: _____ ☒ Not Applicable
5. Acid Rain Part Application
   - ☐ Certificate of Representation (EPA Form No. 7610-1)
     - ☐ Copy Attached, Document ID: _____
   - ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☒ Not Applicable

EMISSIONS UNIT INFORMATION
Section [6]
Sugar Processing Operations

Additional Requirements Comment

ATTACHMENT USSC-EU6-A11

SOURCES AND RESPECTIVE STACK PARAMETERS

ATTACHMENT USSC-EU6-A11

SOURCES AND RESPECTIVE STACK PARAMETERS INCLUDED IN THE SUGAR PROCESSING OPERATION

Source/Vent Name	EU ID	Stack No.	Stack/Vent Release Height (ft)	Stack/Vent Diameter (ft)	Exhaust Flow (acfm)	Exit Velocity[a] (ft/sec)	Gas Exit Temp. (°F)
Existing White Sugar Dryer	015	S-11	75	7.31	113,000	44.9	115
New White Sugar Dryer No. 2	029	S-13	80	7 × 6	90,000	35.7	90
VHP Sugar Dryer	016	S-10	10	4.79	127,000	117.5	115
Granular Carbon Furnace	017	S-12	30	2.00	4,300	22.8	160
Vacuum Systems							
Screening & Distribution Vacuum	018	S-1	65	0.50	1,705	144.7	68
100-lb Bagging Vacuum System	018	S-2	65	0.50	1,564	132.8	90
5-lb Bagging Vacuum System	018	S-3	65	0.50	1,585	134.5	90
Conditioning Silos							
Conditioning Silo No. 2	019	S-7	130	1.37	3,000	33.9	110
Conditioning Silo No. 4	019	S-8	130	1.37	3,000	33.9	110
Conditioning Silo No. 6	019	S-9	130	1.37	3,000	33.9	110
Screening, Distributing, Packaging, Powdered Sugar/Starch							
Screening and Distribution #1	020	S-5	72	0.95	3,200	75.2	125
Screening and Distribution #2	020	S-6	72	1.94	10,500	59.2	125
Sugar Packaging Baghouse							
Packaging Baghouse	022	S-4	60	1.94	11,500	64.8	125

[a] All sources but the Granular Carbon Furnace have horizontal discharge.

ATTACHMENT USSC-EU6-F1.10

POTENTIAL EMISSIONS

ATTACHMENT USSC-EU6-F1.10a.
POTENTIAL EMISSIONS OF PM FROM THE SUGAR REFINERY SOURCES, U.S. SUGAR, CLEWISTON MILL

Source/Vent Name	EU No.	Source ID	Exhaust Grain Loading (gr/dscf)	Exhaust Gas Flow (dscfm)	Hours of Operation	PM Emissions (lb/hr)[a]	PM Emissions (TPY)
V.H.P. Sugar Dryer	015	S-11	0.001723	110,042	8,760	1.63	7.12
White Sugar Dryer No. 1	016	S-10	0.00177	94,488	8,760	1.43	6.28
Granular Carbon Regen. Furnace	017	S-12	--	--	8,760	0.70	3.07
New White Sugar Dryer No. 2	029	S-13	--	78,000	8,760	15.00	65.70
					TOTAL =	18.76	82.17
Vacuum Systems							
Screening and Distribution Vacuum	018	S-1	0.00754	990	8,760	0.06	0.28
100 lb Bagging Vacuum System	018	S-2	0.00856	872	8,760	0.06	0.28
5 lb Bagging Vacuum System	018	S-3	0.00759	984	8,760	0.06	0.28
					TOTAL =	0.19	0.84
Conditioning Silos							
Conditioning Silo No. 2	019	S-7	0.0025	2,641	8,760	0.06	0.25
Conditioning Silo No. 4	019	S-8	0.0025	2,641	8,760	0.06	0.25
Conditioning Silo No. 6	019	S-9	0.0025	2,641	8,760	0.06	0.25
					TOTAL =	0.17	0.74
Screening and Distribution							
Screening and Distribution #1	020	S-5	0.0025	2,668	8,760	0.06	0.25
Screening and Distribution #2	020	S-6	0.0025	8,735	8,760	0.19	0.82
					TOTAL =	0.25	1.07
Sugar Packaging Baghouse							
Packaging Dust Collector	022	S-4	0.0025	9,589	8,760	0.21	0.90
			GRAND TOTAL =			19.58	85.72

[a] Based on permit emission limits.

Note: lb/hr = pounds per hour
TPY = tons per year

ATTACHMENT USSC-EU6-F1.10b
POTENTIAL EMISSIONS OF PM_{10} FROM THE SUGAR REFINERY SOURCES, U.S. SUGAR, CLEWISTON MILL

Source/Vent Name	EU No.	Source ID	Exhaust Grain Loading (gr/dscf)	Exhaust Gas Flow (dscfm)	Hours of Operation	PM_{10} Emissions (lb/hr)[a]	PM_{10} Emissions (TPY)
V.H.P. Sugar Dryer	015	S-11	0.001723	110,042	8,760	1.63	7.12
White Sugar Dryer No. 1	016	S-10	0.00177	94,488	8,760	1.43	6.28
Granular Carbon Regen. Furnace	017	S-12	--	--	8,760	0.63	2.76
New White Sugar Dryer No. 2	029	S-13	0.005	78,000	8,760	4.20	18.40
					TOTAL =	7.89	34.55
Vacuum Systems							
Screening and Distribution Vacuum	018	S-1	0.00754	990	8,760	0.06	0.28
100 lb Bagging Vacuum System	018	S-2	0.00856	872	8,760	0.06	0.28
5 lb Bagging Vacuum System	018	S-3	0.00759	984	8,760	0.06	0.28
					TOTAL =	0.19	0.84
Conditioning Silos							
Conditioning Silo No. 2	019	S-7	0.0025	2,641	8,760	0.06	0.25
Conditioning Silo No. 4	019	S-8	0.0025	2,641	8,760	0.06	0.25
Conditioning Silo No. 6	019	S-9	0.0025	2,641	8,760	0.06	0.25
					TOTAL =	0.17	0.74
Screening and Distribution							
Screening and Distribution #1	020	S-5	0.0025	2,668	8,760	0.06	0.25
Screening and Distribution #2	020	S-6	0.0025	8,735	8,760	0.19	0.82
					TOTAL =	0.25	1.07
Sugar Packaging Baghouse							
Packaging Dust Collector	022	S-4	0.0025	9,589	8,760	0.21	0.90
			GRAND TOTAL =			8.71	38.11

[a] Based on permit emission limits.

Note: lb/hr = pounds per hour
TPY = tons per year

ATTACHMENT USSC-EU6-F1.10c
POTENTIAL EMISSIONS OF CRITERIA POLLUTANTS FROM THE GRANULAR CARBON FURNACE (EU 017), U.S. SUGAR, CLEWISTON MILL

Regulated Pollutant	Maximum Hourly (lb/hr)	Basis	Maximum Annual (TPY)[a]
Particulate Matter (PM)	0.70	Permit Limit	3.07
Particulate Matter (PM_{10})	0.63	90% of PM	2.76
Sulfur Dioxide (SO_2)	0.64	b	2.80
Nitrogen Oxides (NO_x)	3.0	c	13.14
Carbon Monoxide (CO)	3.0	c	13.14
Volatile Organic Compounds (VOCs)	1.0	Permit Limit	4.38

[a] Based on 8,760 hours of operation.

[b] Average hourly rate. Based on stoichmetric calculation for conversion of sulfur into sulfur dioxide: 90 gal/hr x 0.05% x 7.1 lb/gal x 2 lb SO_2/lb sulfur = 0.64 lb/hr.

[c] Estimated emissions obtained from design information provided by BSP Thermal Systems, Inc.

ATTACHMENT USSC-EU6-F1.10d
POTENTIAL EMISSIONS OF CRITERIA POLLUTANTS FROM ALCOHOL USAGE IN THE SUGAR REFINERY, U.S. SUGAR, CLEWISTON MILL

Material	VOC Content (percent)	Maximum Gallons Used (gal/yr)	Pounds Used[a] (lb/yr)	VOC Emissions (lb/hr)	VOC Emissions (TPY)
Isopropyl Alcohol	100	4,587	30,000	3.42	15.00

[a] The density of the isopropyl alcohol is 6.54 lb/gal.

ATTACHMENT USSC-EU6-F1.10e
SUMMARY OF POTENTIAL EMISSIONS FROM THE SUGAR REFINERY, U.S. SUGAR, CLEWISTON MILL

Source	EU No.	Source ID	Potential Emissions (TPY) PM	PM_{10}	SO_2	NO_x	CO	VOC	SAM
V.H.P. Sugar Dryer	015	S-11	7.12	7.12	0	0	0	0	0
White Sugar Dryer No. 1	016	S-10	6.28	6.28	0	0	0	0	0
Granular Carbon Furnace	017	S-12	3.07	2.76	2.80	13.14	13.14	4.38	0.172
White Sugar Dryer No. 2	029	S-13	65.68	18.39	0	0	0	0	0
Vacuum Systems									
Screening and Distribution Vacuum	018	S-1	0.28	0.28	0	0	0	0	0
100 lb Bagging Vacuum System	018	S-2	0.28	0.28	0	0	0	0	0
5 lb Bagging Vacuum System	018	S-3	0.28	0.28	0	0	0	0	0
Conditioning Silos									
Conditioning Silo No. 2	019	S-7	0.25	0.25	0	0	0	0	0
Conditioning Silo No. 4	019	S-8	0.25	0.25	0	0	0	0	0
Conditioning Silo No. 6	019	S-9	0.25	0.25	0	0	0	0	0
Screening, Distribution, Packaging, Powdered Sugar/Starch									
Screening and Distribution #1	020	S-5	0.25	0.25	0	0	0	0	0
Screening and Distribution #2	020	S-6	0.82	0.82	0	0	0	0	0
Sugar Packaging Baghouse									
Packaging Dust Collector	022	S-4	0.90	0.90	0	0	0	0	0
Alcohol Usage	021	--	0	0	0	0	0	15.00	0
TOTAL ALL REFINERY SOURCES			85.70	38.11	2.80	13.14	13.14	19.38	0.172

ATTACHMENT USSC-EU6-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS

PERMITTEE

United States Sugar Corporation
111 Ponce DeLeon Avenue
Clewiston, FL 33440
Authorized Representative:
Mr. Neil Smith, V.P. of Sugar Processing Operations

Clewiston Sugar Mill and Refinery
Air Permit No. PSD-FL-346A
Project No. 0510003-038-AC
Revised PM/PM_{10} Standards
Permit Expires: December 31, 2007

FACILITY AND LOCATION

The United States Sugar Corporation operates the existing Clewiston sugar mill and refinery (SIC Nos. 2061, 2062), which is located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. Sugarcane is harvested from nearby fields and transported to the mill by train. In the mill, sugarcane is cut into small pieces and passed through a series of presses to squeeze juice from the cane. The juice undergoes clarification, separation, evaporation, and crystallization to produce raw, unrefined sugar. In the refinery, raw sugar is decolorized, concentrated, crystallized, dried, conditioned, screened, packaged, stored, and distributed as refined sugar.

STATEMENT OF BASIS

This modification revises the original PM/PM_{10} emissions standards and 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.

CONTENTS

Joseph Kahn, Director
Division of Air Resource Management

Effective Date

PROJECT DESCRIPTION

The United States Sugar Corporation installed new White Sugar Dryer No. 2 (EU-029) to support the existing refinery operations. Particulate matter emissions are controlled by a set of four high efficiency cyclone collectors in parallel followed by a wet atomizing venturi-type scrubber. Initial testing shows water droplets containing dissolved sugar in the exhaust stream. This permit modification revises the permit and requires following actions: retain the current standard of "4.2 lb/hour" as the PM_{10} standard with compliance demonstrated by EPA Method 201A; add a new PM standard of "15 lb/hour" with compliance demonstrated by EPA Method 5; install a drain in the silencer ductwork to prevent re-entraining water droplets; reduce the maximum sugar concentration of the recycled scrubber water; conduct new compliance tests; and submit a report detailing the costs of several possible additional improvements. Based on the cost information and addition test data, the Department may modify this permit to reduce the particulate matter emissions standards.

REGULATORY CLASSIFICATION

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

Title IV: The existing facility has 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 facility as defined in Rule 62-212.400, F.A.C.

APPENDICES

The following Appendices are attached as part of this permit.

Appendix A. Citation Formats

Appendix B. General Conditions

Appendix C. Common Requirements

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.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Florida Department of Environmental Protection's Bureau of Air Regulation. The mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's South District Office at 2295 Victoria Avenue, Suite 364, Fort Myers, Florida, 33901-3381.

3. Citation Formats: Appendix A identifies the methods used to cite rules, regulations, and permits.

4. General Conditions: The permittee shall comply with the general conditions specified in Appendix B.

5. Common Requirements: Common regulatory requirements are specified in Appendix C.

6. 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. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. 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.]

7. Source Obligation:

   (a) Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit.

   (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   (c) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   [Rule 62-212.400(12), F.A.C.]

8. 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.]

9. Modifications: 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. [Rule 62-4.030 and Chapters 62-210 and 62-212, F.A.C.]

10. Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation 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 Department's South District Office. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

A. White Sugar Dryer No. 2 (EU-029)

This section of the permit addresses the following new emissions unit.

ID	Emission Unit Description
029	The new white sugar dryer will be a fluidized bed-type dryer/cooler with a rated capacity of 85 tons per hour of refined sugar. After wet refined sugar is centrifuged, the dryer will be used to drive off remaining moisture. Sugar with a moisture content of approximately 1.5% by weight will enter the dryer between 120° - 140° F and be suspended in a fluidized bed with jets of hot, conditioned air. A maximum of 11,000 pounds per hour of low pressure steam (12 psig) from the existing mill boilers will supply heat for the process. Sugar will exit the dryer with a moisture content of approximately 0.03% by weight and a temperature between 92° F - 102° F. The refined sugar is then transferred to the conditioning silos. No fuel will be fired and no other new equipment is being added. Particulate matter emissions from the dryer will be controlled by a set of four high efficiency cyclone collectors in parallel followed by a wet scrubber. Exhaust at 110° F will leave a stack approximately ~~78~~ 82 feet above ground level with a with a volumetric flow rate of 92,000 acfm. The rectangular stack will be 7.0 feet by 6.0 feet. The scrubber pressure drop and scrubber water recirculation flow rate will be continuously monitored.

{Permitting Note: The particulate matter emissions standards for the new dryer are established pursuant to Rule 62-212.400, F.A.C (BACT).}

EQUIPMENT

1. New White Sugar Dryer No. 2: The permittee is authorized to construct a new fluidized bed white sugar dryer/cooler (BMA or equivalent) with a rated capacity of 85 tons per hour. Jets of hot conditioned air will be used in the dryer to suspend sugar in a fluidized bed to drive off excess moisture. Low pressure steam will be used to heat the conditioned air; no fuel will be fired. [Design]

2. Air Pollution Control Equipment: To comply with the standards of this permit, the permittee shall install the following air pollution control equipment.

   a. *Cyclone Collectors*: In accordance with the manufacturer's recommendations, the permittee shall install, operate, and maintain a set of four high efficiency cyclone collectors (Entoleter, LLC Model 6600 or equivalent) in parallel with a design removal efficiency of at least 99% of the particulate loading from the new white sugar dryer. The design control efficiency is based on the following inlet conditions: inlet temperature of 110° F; inlet flow rate of 92,000 acfm; inlet dust loading of 14 grains per dscf of inlet gas (11,760 lb/hour); and a pressure drop across the cyclone collectors of 4 - 6 inches of water column.

   b. *Wet Scrubber*: In accordance with the manufacturer's recommendations, the permittee shall install, operate, and maintain a wet scrubber (Entoleter, LLC Centrifield Vortex Model 1500 or equivalent) with a design removal efficiency of at least 96% of the particulate loading from the new cyclone collectors. The design control efficiency is based on the following inlet conditions: inlet temperature of 113° F; inlet flow rate of 92,000 acfm; inlet dust loading of 0.14 grains per dscf of inlet gas (118 lb/hour); a scrubber water recirculation flow rate of 500 gpm; a scrubber make-up water flow rate of 12 gpm; and a pressure drop of 8 - 10 inches of water column.

   The combined design removal efficiency of the two particulate control devices shall be no less than 99.96% based on the above conditions.

   [Design; Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

PERFORMANCE REQUIREMENTS

3. Permitted Capacity: The maximum design capacity of the new sugar dryer is 85 tons per hour of sugar. [Design; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

4. Wet Scrubber: The owner or operator shall maintain 3-hour block averages of the scrubber water recirculation rate (gpm) and pressure drop across the wet scrubber (inches of water column) above the 3-hour averages established during a satisfactory compliance test for particulate matter conducted at permitted capacity. If either monitored parameter drops below the specified level, the permittee shall investigate, take corrective actions to regain the specified operating level, and record the incident in a written log. Operation outside of the specified operating range for any monitored parameter is not a violation of this permit, in and of itself. However, continued operation outside of the specified operating range for any monitored parameter without taking corrective action may be considered circumvention of the air pollution control equipment. *{Permitting Note: For informational purposes, the nominal operating ranges are 500 gpm and 8 - 10 inches of water column.}* [Design; Rule 62-4.070(3), F.A.C.]

EMISSIONS STANDARDS

5. Particulate Matter: As determined by EPA Method 201A stack test, particulate matter emissions less than 10 microns (PM_{10}) shall not exceed 0.005 grains per dscf and 4.2 pounds per hour based on the average of three test runs. As determined by EPA Method 5 stack test, particulate matter emissions shall not exceed 15.0 pounds per hour based on the average of three test runs. [Design; Rule 62-212.400(BACT), F.A.C.]

6. Visible Emissions: Excluding water vapor, visible emissions from the wet scrubber stack shall not exceed 10% opacity. [Rule 62-212.400(BACT), F.A.C.]

TESTING REQUIREMENTS

7. Compliance Stack Tests – Revised: The permittee shall conduct initial stack tests to demonstrate compliance with the particulate matter emissions standards within 90 days after issuance of this final permit and after installing the drain(s) in the ductwork with the silencer vanes to remove collected water. The permittee shall conduct one series of three, 1-hour test runs to demonstrate compliance with the PM_{10} and visible emissions standards. The permittee shall conduct two series of three, 1-hour test runs to demonstrate compliance with the PM and visible emissions standards. For the PM tests, one series shall be conducted at a recirculation flow rate of 500 gpm and the second series shall be conducted at a recirculation flow rate of 750 gpm. The permittee shall also conduct subsequent stack tests to demonstrate compliance with the particulate matter emissions standards during the 12-month period prior to the expiration date of any air operation permit. Tests shall be conducted in accordance with EPA Method 201A (PM_{10}), EPA Method 5 (PM), EPA Methods 1 - 4 (as necessary to support EPA Methods 201A and 5), and EPA Method 9 (visible emissions). The EPA test methods and procedures are specified in Appendix A of 40 CFR 60 and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. In accordance with Rule 62-297.310(2), F.A.C., all tests shall be conducted at permitted capacity. The Department may require the permittee to repeat some or all of these initial stack tests after major replacement or major repair of any air pollution control or process equipment. [Rules 62-204.800, 62-212.400(BACT) and 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8; 40 CFR 60, Appendix A]

MONITORING REQUIREMENTS

8. Cyclone Collectors: In accordance with the manufacturer's recommendations, the permittee shall install, calibrate, operate and maintain a manometer (or equivalent) to monitor the pressure differential across each cyclone collector. *{Permitting Note: The design pressure differential for the cyclone collectors is 4 - 6*

inches of water column. Although no periodic records of the pressure differential are required, the devices shall be properly maintained and functional to provide operational data for evaluating problems.} [Rule 62-4.070(3), F.A.C.]

9. Wet Scrubber Parameters: In accordance with the manufacturer's recommendations, the permittee shall install, calibrate, operate and maintain devices to continuously monitor and record the wet scrubber water recirculation rate (gpm) and the pressure differential across the wet scrubber (inches of water column). Data shall also be reduced to 3-hour block averages. Records shall be maintained on site and made available upon request. [Design; Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

RECORDS AND REPORTS

10. Stack Test Reports: In addition to the information required in Rule 62-297.310(8), F.A.C., each stack test report shall also include the following information: sugar processing rate through the dryer (tons per hour); the air flow rate; the scrubber water recirculation rate (gpm); the scrubber water sugar content in brix; and the pressure differential across the wet scrubber (inches of water column). In addition, the permittee shall record and report the pressure differential across each cyclone collector at the beginning and end of each test run. The stack test report shall clearly indicate the 3-hour averages of the wet scrubber water recirculation rate and pressure differential and that these operating parameters will be complied with based on a 3-hour block average. [Rule 62-4.070(3), F.A.C.]

ADDITIONAL REQUIREMENTS – PM/PM_{10} REVISION

11. Drain: Within 30 days of issuance of this final permit, the permittee shall install a drain(s) in the ductwork with the silencer vanes to remove collected water. The permittee shall notify the Bureau of Air Regulation and the Compliance Authority when the drain is installed. [Rule 62-4.070(3), F.A.C.]

12. Sugar Content of Recirculating Scrubber Water: Within 30 days of issuance of this final permit, the scrubber system shall be reset to operate so that fresh makeup water will be added to maintain a maximum sugar content of 15 brix in the recirculated scrubber water. [Rule 62-4.070(3), F.A.C.]

13. Additional Report: In conjunction with the required PM/PM_{10} stack test report, the permittee shall provide individual cost estimates based on bids and a detailed description of the necessary work for: redesigning and modifying the cyclone system (possibly adding a cyclone) to accept all of the dryer exhaust; moving the I.D.fan from after the scrubber to between the cyclones and the scrubber; and removing the mitered elbow and installing a properly sized vertical duct at the scrubber outlet. Based on the cost information and additional test data, the Department may modify this permit to reduce the particulate matter emissions standards. [Rules 62-4.070(3) and 62-212.400(PSD), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Miscellaneous Particulate Sources (EU-015, 016, 018, 019, 020, 022, and 029)

This section of the permit addresses the following emissions units.

EU No.	Emissions Unit Description
015	VHP sugar dryer with baghouse (S-11)
016	White sugar dryer No. 1 with baghouse (S-10)
018	Vacuum Systems: Screening/distribution vacuum with baghouse (S-1); 100 lb bagging vacuum with baghouse (S-2); 5 lb bagging vacuum with baghouse (S-3)
019	Six conditioning silos with baghouses (S-7, S-8, and S-9)
020	Screening/distribution and powdered sugar/starch bins with baghouses (S-5 and S-6)
022	Packaging baghouse (S-4)
029	White sugar dryer No. 2 with wet scrubber (S-13)

MODIFIED CONDITION

Condition 2 (Section III, Subsection F) in Permit No. PSD-FL-272A is changed to:

2. Production Restrictions: No more than 2000 tons of refined sugar per day and no more than 730,000 tons of refined sugar per consecutive 12 months shall be packaged at this facility. In addition, no more than 2250 tons of refined sugar per day and no more than 803,000 tons of refined sugar per consecutive 12 months shall be loaded out from this facility. [Applicant Request; Rules 62-210.200 (PTE) and 62-212.400(12), F.A.C., F.A.C.; Air Permit No. PSD-FL-346A]

All other conditions in Permit No. PSD-FL-272A shall remain unchanged.

Filename: PSD-FL-346A - Sugar Dryer - Final Permit

CAM REVISIONS

1.0 PARTICULATE MATTER EMISSIONS FROM CLEWISTON BOILER NO. 1

1.1 Emissions Unit Identification

Clewiston Boiler No. 1—EU ID 001

1.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements

Boiler No. 1 has a particulate matter (PM) emission limit of 0.25 pound per million British thermal units (lb/MMBtu) for carbonaceous fuel (Permit No. 0510003-017-AV) plus 0.1 lb/MMBtu for distillate oil [Rule 62-296.410(1)(b)2, Florida Administrative Code (F.A.C.) and Permit No. 0510003-027-AC]. The equivalent potential emissions are 123.8 pounds per hour (lb/hr) and 542.0 tons per year (TPY) for carbonaceous fuel and 20.8 lb/hr and 23.6 TPY for distillate 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 Nos. 0510003-017-AV and 0510003-027-AC, and Rule 62-296.410(1)(b)1, F.A.C.].

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 inlet pressure must be monitored and recorded at least once per 8-hour shift during each day of operation. The monitors must be properly maintained and functional at all times, except during instrument breakdown, calibration, or repair (Permit No. 0510003-017-AV).

1.3 Control Technology Description

PM emissions from Boiler No. 1 are controlled by a Joy Turbulaire Impingement Scrubber, Size 125, Type D. The operating pressure drop across the scrubber is 6 to 12 inches of water (inches H_2O). The operating scrubber water inlet pressure to each scrubber is 60 to 130 pounds per square inch gauge (psig). The effectiveness of the wet scrubbers is evaluated with an annual stack test and VE measurements. A detailed description of the control equipment is included in the Title V renewal application (Attachment USSC-EU1-I3).

1.4 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. 1	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across the scrubber.	Total water flow rate to the scrubber.
Measurement Approach	Pressure drop is monitored with a manometer or equivalent.	The scrubber water flow rate is measured using a flow meter.
Indicator Range	An excursion is defined as any pressure drop below 6 inches H_2O. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.	An excursion is defined as any water flow rate below 191 gallons per minute (gpm). Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.
Data Representativeness	The monitoring system consists of a manometer which measures the pressure drop across the scrubber. The minimum accuracy of the device is ±0.5 inches H_2O gauge pressure.	The scrubber water flow meter is located on the scrubber liquid supply line. The minimum accuracy of the device is ±5 percent of total water flow.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	The manometer is maintained in accordance with the manufacturer's recommendations.	The flow meter is maintained in accordance with the manufacturer's recommendations.
Monitoring Frequency	Pressure drop is monitored continuously.	Scrubber water flow rate is monitored continuously.
Data Collection Procedures	Reading taken once every 8 hours and recorded in log.	Reading taken once every 8 hours and recorded in log.
Averaging Period	NA	NA

1.5 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.

Water delivery pressure is currently monitored, which provides an indication of plugging of the spray nozzles in the scrubber. 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.

U.S. Sugar has historic test data 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 B.

The proposed parameter minimum values are based on 90 percent of the minimum parameter values recorded during the test runs, using the historic test data, when compliance was demonstrated with the PM limit. The calculations of the minimum parameter values are provided below:

Pressure Drop:	Minimum test run value = 7 inches H_2O
	Minimum parameter value = 7 x 0.9 = 6 inches H_2O
Water Flow Rate:	Minimum test run value = 212 gpm
	Minimum parameter value = 212 x 0.9 = 191 gpm

Wet scrubber operating parameter values below these minimum parameter values are indicative of abnormal operation of the wet scrubber. This methodology is consistent with the establishment of wet scrubber operating limits under Title 40, Part 63 of the Code of Federal Regulations (40 CFR 63), Subpart DDDDD, which are the Industrial Boiler/Process Heater maximum achievable control technology (MACT) standards. Boiler No. 1 will be subject to these standards beginning in September 2007.

The CAM regulations generally require that pollutant-specific emissions units with the potential to emit greater than 100 TPY collect monitoring data at least four times per hour. However, 40 CFR 64.3(b)(4)(ii) allows the permitting authority to approve a reduced data collection frequency, if appropriate, based on the data collection mechanisms available for a particular parameter.

U.S. Sugar has been recording scrubber parameters once every 8-hour shift, according to the current Title V permit conditions. Although U.S. Sugar has continuous pressure drop and water flow rate monitors in place, the mechanisms are not in place to continuously record the data and create hourly averages. It is; therefore, requested that the current recording frequency of once per 8-hour shift be retained.

Based on collecting data once per 8-hour shift, an excursion will 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 on a semi-annual basis.

2.0 PARTICULATE MATTER EMISSIONS FROM CLEWISTON BOILER NO. 2

2.1 Emissions Unit Identification

Clewiston Boiler No. 2—EU ID 002

2.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements

Boiler No. 2 has a PM emission limit of 0.25 lb/MMBtu for carbonaceous fuel (Permit No. 0510003-017-AV) plus 0.1 lb/MMBtu for distillate oil [Rule 62-296.410(1)(b)2, F.A.C., and Permit No. 0510003-027-AC]. The equivalent potential emissions are 111.8 lb/hr and 490.0 TPY for carbonaceous fuel and 20.8 lb/hr and 23.6 TPY for distillate oil. The current VE limit is 30-percent opacity, with an exception of up to 40-percent opacity for 2 minutes per hour [Permit Nos. 0510003-017-AV and 0510003-027-AC, and Rule 62-296.410(1)(b)1, F.A.C.].

PM and VE compliance testing is required annually on Boiler No. 2. In addition, the total pressure drop across the scrubber and the scrubber water inlet pressure must be monitored and recorded at least once per 8-hour shift during each day of operation. The monitors must be properly maintained and functional at all times, except during instrument breakdown, calibration, or repair (Permit No. 0510003-017-AV).

2.3 Control Technology Description

PM emissions from Boiler No. 2 are controlled by a Joy Turbulaire Impingement Scrubber, Size 125, Type D. The operating pressure drop across the scrubber is 6 to 12 inches H_2O. The operating scrubber water inlet pressure is 60 to 130 psig. The effectiveness of the wet scrubber is evaluated with an annual stack test and VE measurements. A detailed description of the control equipment is included in the Title V renewal application (Attachment USSC-EU2-I3).

2.4 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. 2	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across the scrubber.	Total water flow rate to the scrubber.
Measurement Approach	Pressure drop is monitored with a manometer or equivalent.	The scrubber water flow rate is measured using a flow meter.
Indicator Range	An excursion is defined as any pressure drop below 5 inches H_2O. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.	An excursion is defined as any water flow rate below 207 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.
Data Representativeness	The monitoring system consists of a manometer which measures the pressure drop across the scrubber. The minimum accuracy of the device is ±0.5 inches H_2O gauge pressure.	The scrubber water flow meter is located on the scrubber liquid supply line. The minimum accuracy of the device is ±5 percent of total water flow.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	The manometer is maintained in accordance with the manufacturer's recommendations.	The flow meter is maintained in accordance with the manufacturer's recommendations.
Monitoring Frequency	Pressure drop is monitored continuously.	Scrubber water flow rate is monitored continuously.
Data Collection Procedures	Reading taken once every 8 hours and recorded in log.	Reading taken once every 8 hours and recorded in log.
Averaging Period	NA	NA

2.5 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.

Water delivery pressure is currently monitored, which provides an indication of plugging of the spray nozzles in the scrubber. 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.

U.S. Sugar has historic test data 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 B.

The proposed parameter minimum values are based on 90 percent of the minimum parameter values recorded during the test runs, using the historic test data, when compliance was demonstrated with the PM limit. The calculations of the minimum parameter values are provided below:

Pressure Drop:	Minimum test run value = 6 inches H_2O
	Minimum parameter value = 6 x 0.9 = 5 inches H_2O
Water Flow Rate:	Minimum test run value = 230 gpm
	Minimum parameter value = 230 x 0.9 = 207 gpm

Note that the pressure drop values of 3.0 in H_2O, recorded during the January 12, 1998 compliance test as shown in Appendix B, are considered to be outliers and were not used in determining the minimum pressure drop value.

Wet scrubber operating parameter values below these minimum parameter values are 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. Boiler No. 2 will be subject to these standards beginning in September 2007.

The CAM regulations generally require that pollutant-specific emissions units with the potential to emit greater than 100 TPY collect monitoring data at least four times per hour. However, 40 CFR 64.3(b)(4)(ii) allows the permitting authority to approve a reduced data collection frequency, if appropriate, based on the data collection mechanisms available for a particular parameter.

U.S. Sugar has been recording scrubber parameters once every 8-hour shift, according to the current Title V permit conditions. Although U.S. Sugar has continuous pressure drop and water flow rate monitors in place, the mechanisms are not in place to continuously record the data and create hourly

averages. It is therefore, requested that the current recording frequency of once per 8-hour shift be retained.

Based on collecting data once per 8-hour shift, an excursion will 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 on a semi-annual basis.

FIGURE 2-1
PM vs. Water Flow
Clewiston Boiler No. 1

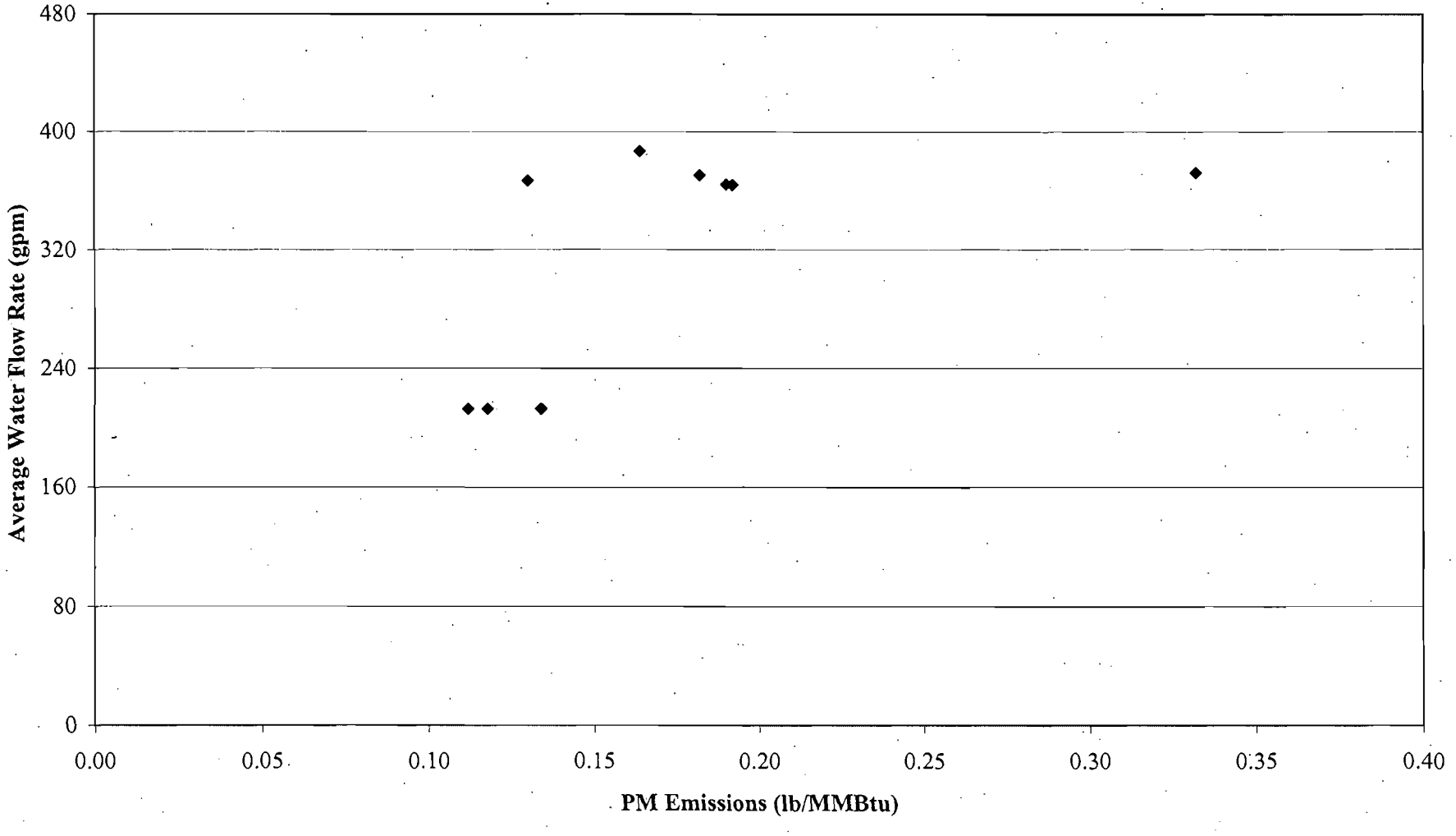

FIGURE 2-2
PM vs. Pressure Drop
Clewiston Boiler No. 1

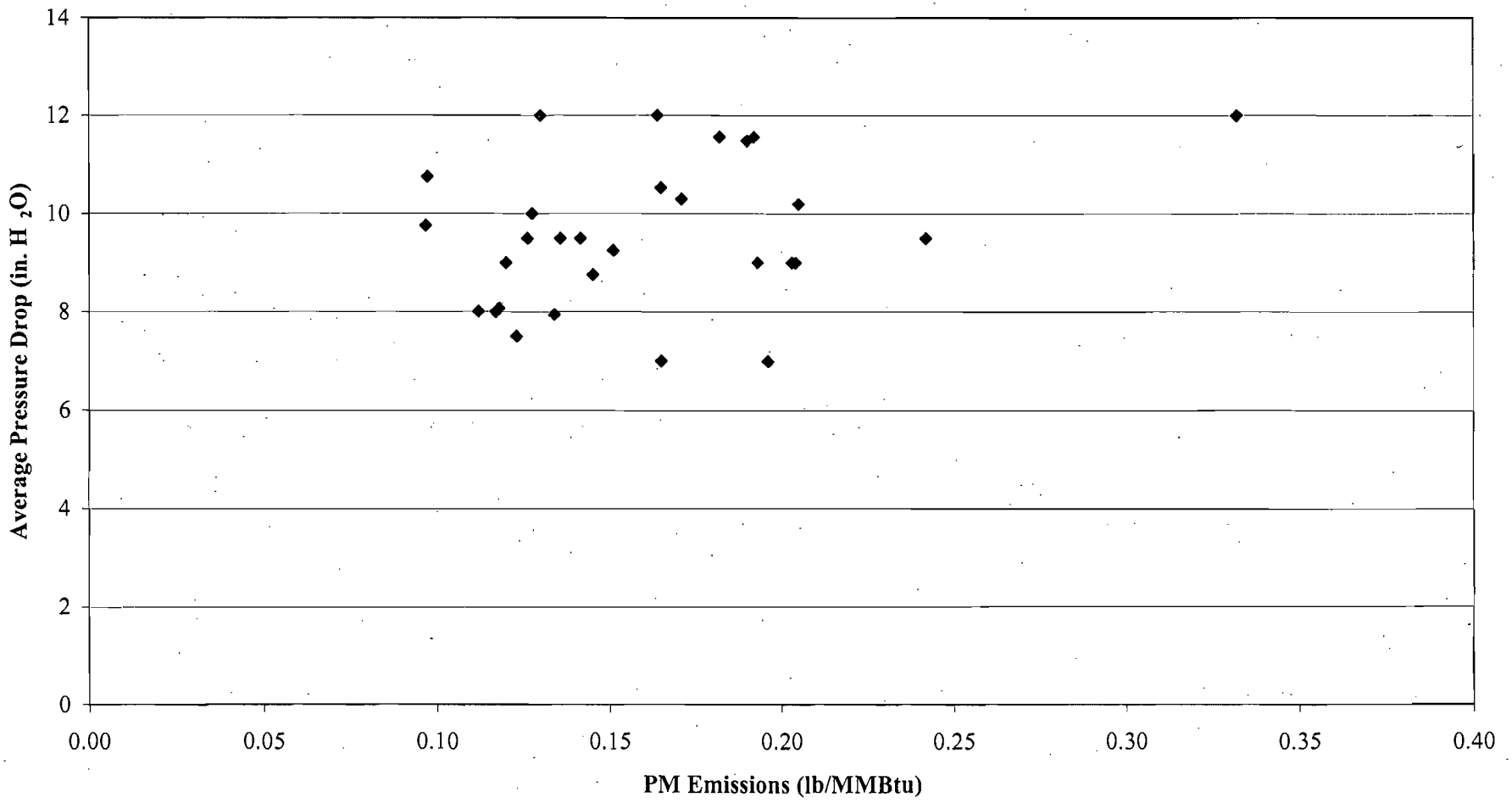

FIGURE 3-1
PM vs. Water Flow
Clewiston Boiler No. 2

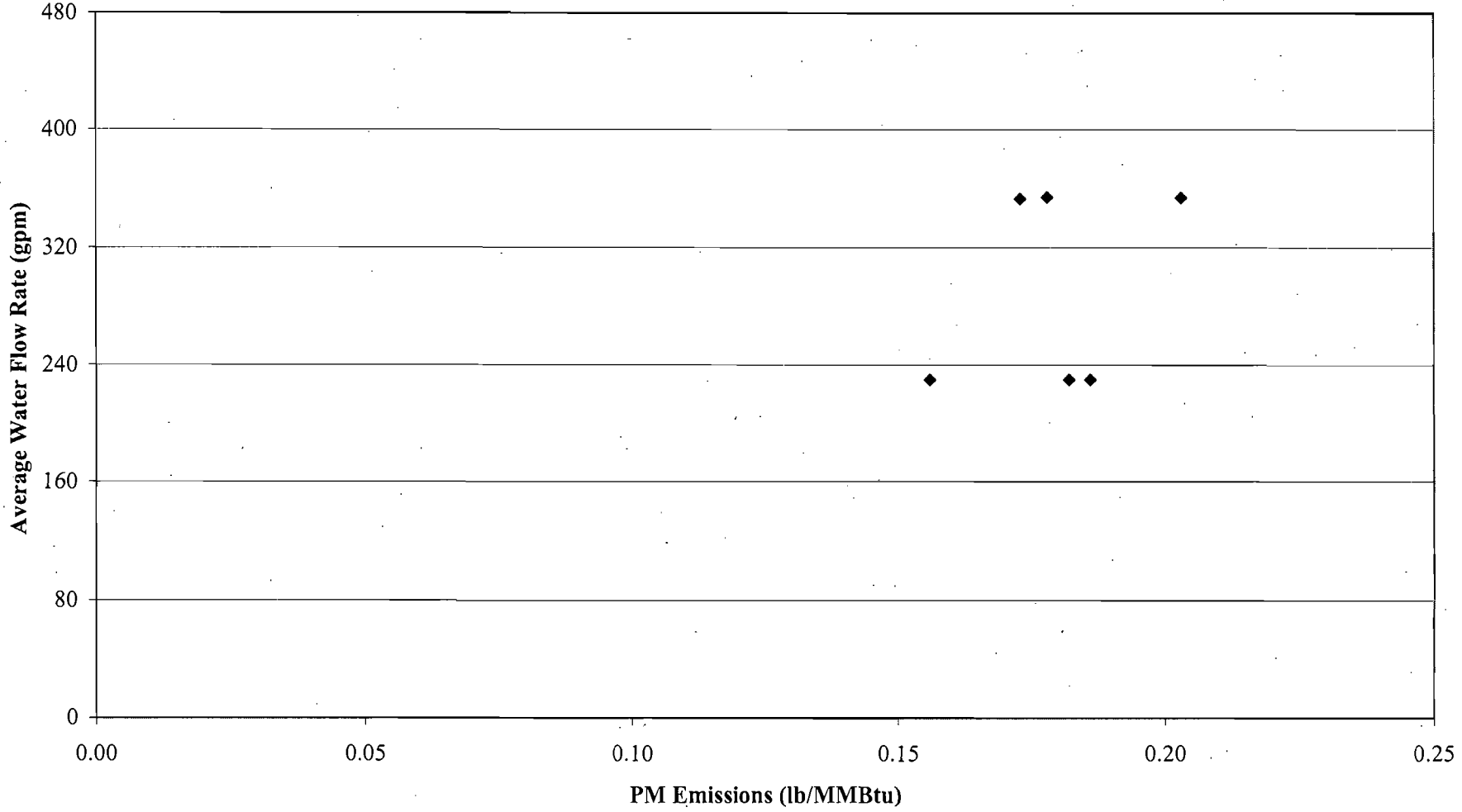

FIGURE 3-2
PM vs. Pressure Drop
Clewiston Boiler No. 2

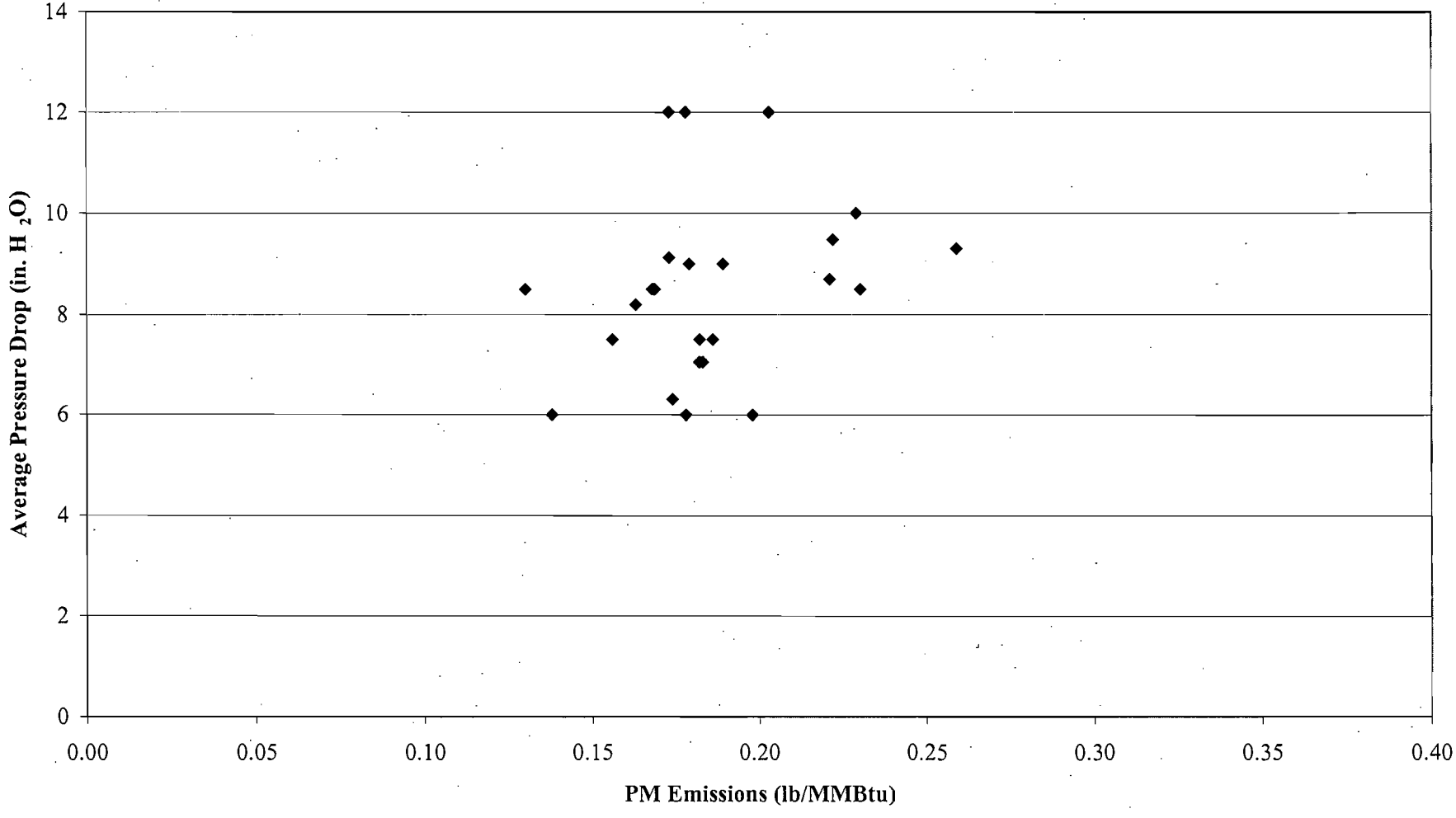

FIGURE 5-1
PM vs. Power
Clewiston Boiler No. 7

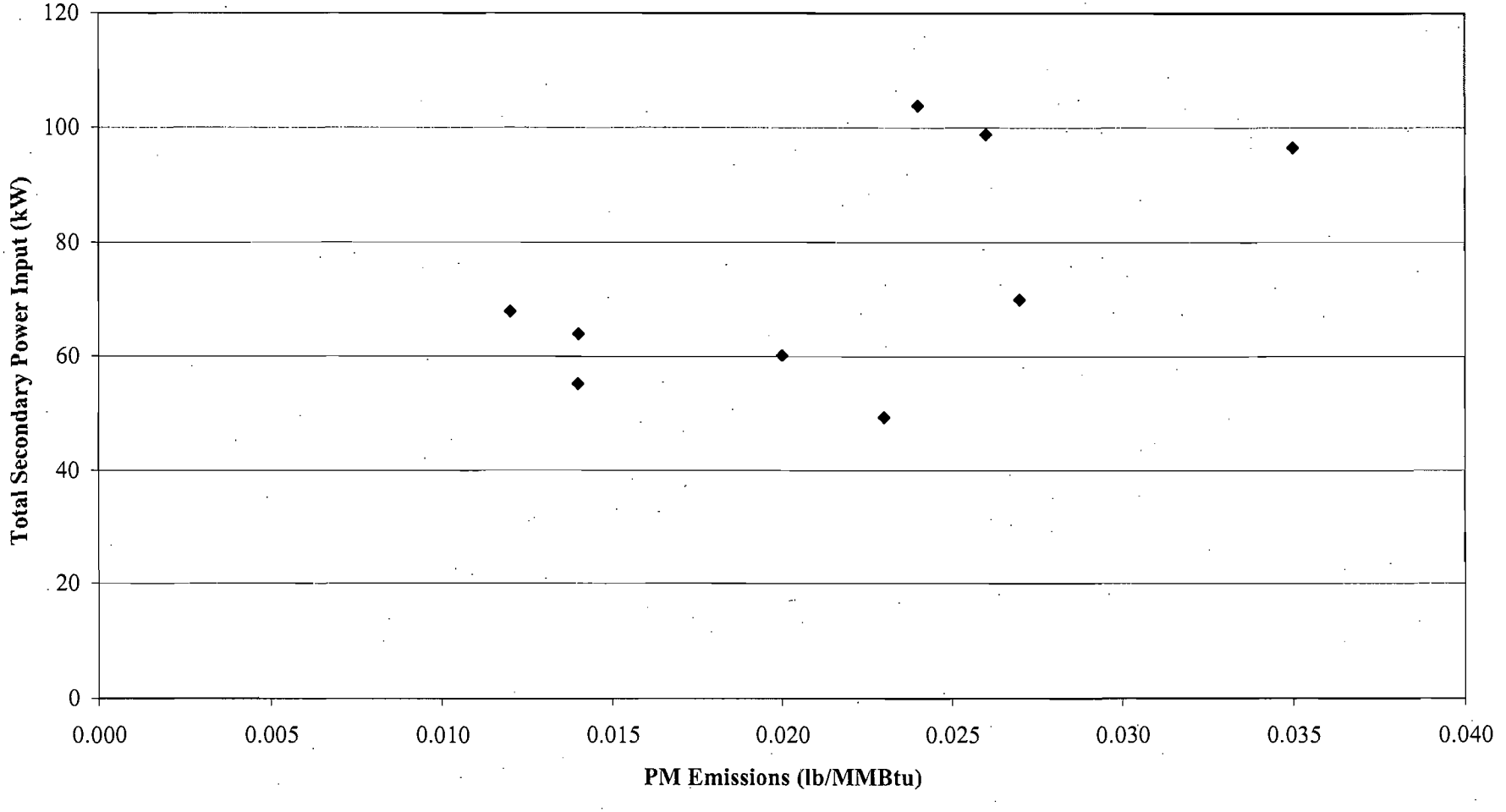

TABLE B-1

BOILER PM EMISSION TESTS, CLEWISTON

Unit	Run Number	Boiler Type	Test Date	Stack Gas Flow Rate (dscfm)	Stack Gas Flow Rate (acfm)	Steam Rate (lb/hr)	Heat Input Rate (MMBtu/hr)	Bagasse Burning Rate [1] (TPH)	Allowable PM Emissions (EPA Method 5)		Actual PM Emissions (EPA Method 5)		ESP Secondary Power Input (kW)
									lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	
Boiler 7	1	Spreader-Stoker Vibrating Grate	02/04/05	165,392	296,331	232,174	494.28	68.65	14.83	0.030	11.57	0.023	49.3
Boiler 7	2	Spreader-Stoker Vibrating Grate	02/04/05	161,579	296,174	228,000	487.84	67.76	14.64	0.030	6.84	0.014	55.1
Boiler 7	3	Spreader-Stoker Vibrating Grate	02/04/05	159,426	285,860	223,099	475.52	66.04	14.27	0.030	13.03	0.027	70.0
Boiler 7	1	Spreader-Stoker Vibrating Grate	01/05/06	184,525	318,378	318,300	659.85	91.65	19.80	0.030	13.47	0.020	60.1
Boiler 7	2	Spreader-Stoker Vibrating Grate	01/05/06	178,105	315,125	348,674	721.46	100.20	21.64	0.030	9.96	0.014	63.9
Boiler 7	3	Spreader-Stoker Vibrating Grate	01/05/06	173,265	306,013	349,209	720.61	100.08	21.62	0.030	8.77	0.012	67.9
Boiler 7	1	Spreader-Stoker Vibrating Grate	01/25/07	185,288	318,417	307,597	637.19	88.50	19.12	0.030	22.05	0.035	96.5
Boiler 7	2	Spreader-Stoker Vibrating Grate	01/25/07	174,015	301,630	319,097	658.39	91.44	19.75	0.030	16.91	0.026	98.8
Boiler 7	3	Spreader-Stoker Vibrating Grate	01/25/07	175,714	301,314	290,569	599.18	83.22	17.98	0.030	14.46	0.024	103.9

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.

Footnotes:

[1] Assumed 3,600 Btu/lb average heat content for wet bagasse, except where noted.

7.0 PM EMISSIONS FROM THE WHITE SUGAR DRYER NO. 2

7.1 Emissions Unit Identification

White Sugar Dryer No. 2 -- EU ID No. 029

7.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements

The White Sugar Dryer No. 2, which dries the sugar following centrifugation and precedes the conditioning silos, has an allowable PM emission limit of 15 lb/hr, which is equivalent to 65.7 TPY. The allowable PM_{10} emission limit is 0.005 gr/dscf, which is equivalent to 4.20 lb/hr and 18.38 TPY. The current VE limit is 10-percent opacity (Permit No. 0510003-038-AC/PSD-FL-346A). Refined sugar production is limited to 803,000 TPY.

7.3 Control Technology Description

The White Sugar Dryer No. 2 system contains four cyclone collectors followed by a wet scrubber. The cyclone collectors are considered to be IPE, since they collect sugar product from the dryer and recycle the sugar back to the process. Therefore, PM/PM_{10} emissions are controlled by the wet scrubber. The cyclone collector is manufactured by Entoleter, LLC (Model 6600) and the wet scrubber is manufactured by Entoleter, LLC (Centrified Vortex Model 1500). A detailed description of the control equipment is included in the Title V renewal application, Attachment USSC-EU6-I3, items l and m, which was submitted June 2006.

7.4 Monitoring Approach

The monitoring approach is based on monitoring scrubber water recirculation rate and pressure drop across the wet scrubber. The monitoring approach is summarized in the table below:

White Sugar Dryer No. 2	Indicator No. 1	Indicator No. 2
Indicator	Scrubber water recirculation rate (gpm).	Pressure drop across the scrubber (inches H_2O).
Measurement Approach	Scrubber water recirculation rate is monitored with a magnetic flow meter (Rosemount 8732).	Pressure drop is monitored with a manometer or equivalent.
Indicator Range	An excursion is defined as any water flow rate below 500 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.	An excursion is defined as any pressure drop below 8 inches H_2O. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.
Data Representativeness	The monitoring system will consist of a magnetic flow meter located on the scrubber recirculation line. The minimum accuracy of the device is ±5 percent of water flow.	The monitoring system will consist of a manometer which measures the pressure drop across the scrubber. The minimum accuracy of the device will be ±0.5 inches H_2O gauge pressure.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	The flow meter will be maintained in accordance with the manufacturer's recommendations.	The manometer will be maintained in accordance with the manufacturer's recommendations.
Monitoring Frequency	Water recirculation rate will be monitored continuously.	Pressure drop will be monitored continuously
Data Collection Procedures	Data continuously recorded.	Data continuously recorded.
Averaging Period	Continuous data reduced to 3 hour block average.	Continuous data reduced to 3 hour block average.

7.5 Justification

Both pressure drop across the scrubber and water recirculation rate to the scrubber are recognized parameters for controlling PM/PM_{10} 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 recirculation rate is a measure of sufficient scrubbing liquid being supplied to the scrubber.

U.S. Sugar has recent test data to establish indicator values for pressure drop and water recirculation rate to the wet scrubber. The test data correlating the parameters to the PM/PM_{10} emission levels is presented in Figures 7-1 through 7-4. Supporting information is contained in Appendix B.

The proposed parameter minimum values are based on the minimum parameter values recorded during the test runs, using the historic test data, when compliance was demonstrated with the PM and PM_{10} limit as well as the current permit limits (Permit No. 0510203-038-AC/PSD-FL-346A). The minimum parameter values are provided below:

Pressure Drop:	Minimum test run value = 8 inches H_2O
Water Flow Rate:	Minimum test run value = 500 gpm

Wet scrubber operating parameter values below these minimum parameter values are indicative of abnormal operation of the wet scrubber. An excursion will occur whenever any 3-hour block average 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 on a semi-annual basis.

FIGURE 7-1
PM vs. Flow
White Sugar Dryer No. 2

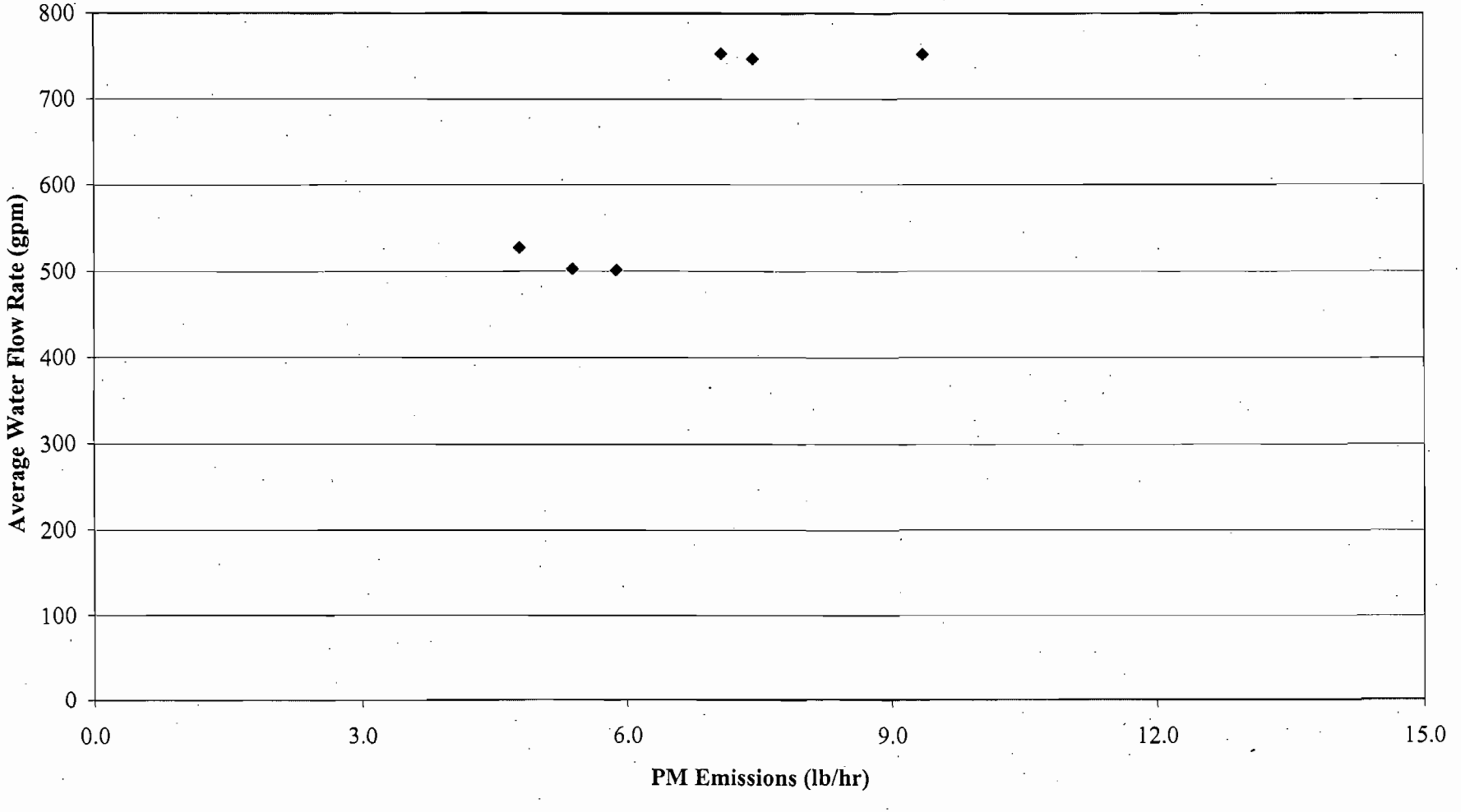

FIGURE 7-2
PM vs. Pressure Drop
White Sugar Dryer No. 2

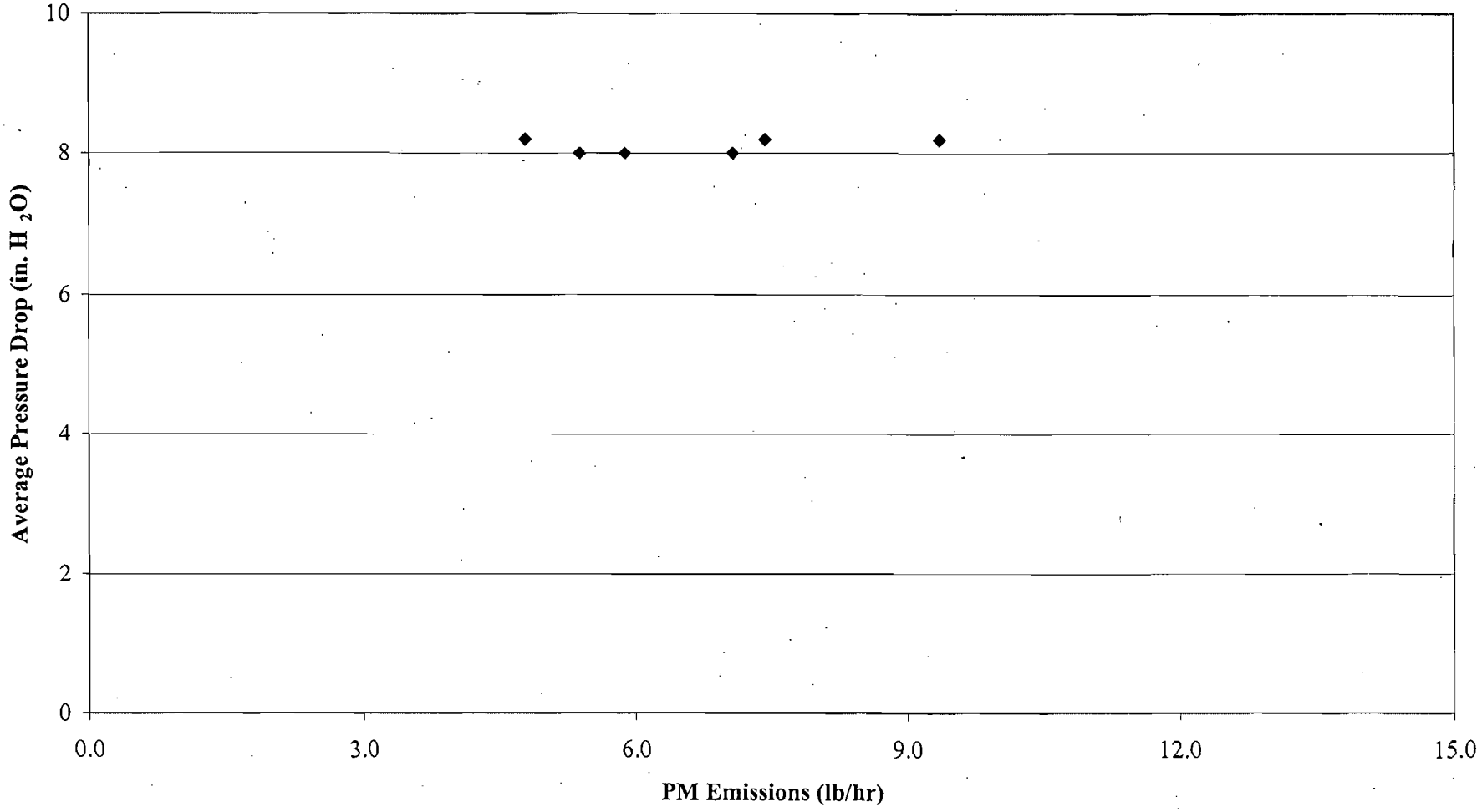

FIGURE 7-3
PM_{10} vs. Flow
White Sugar Dryer No. 2

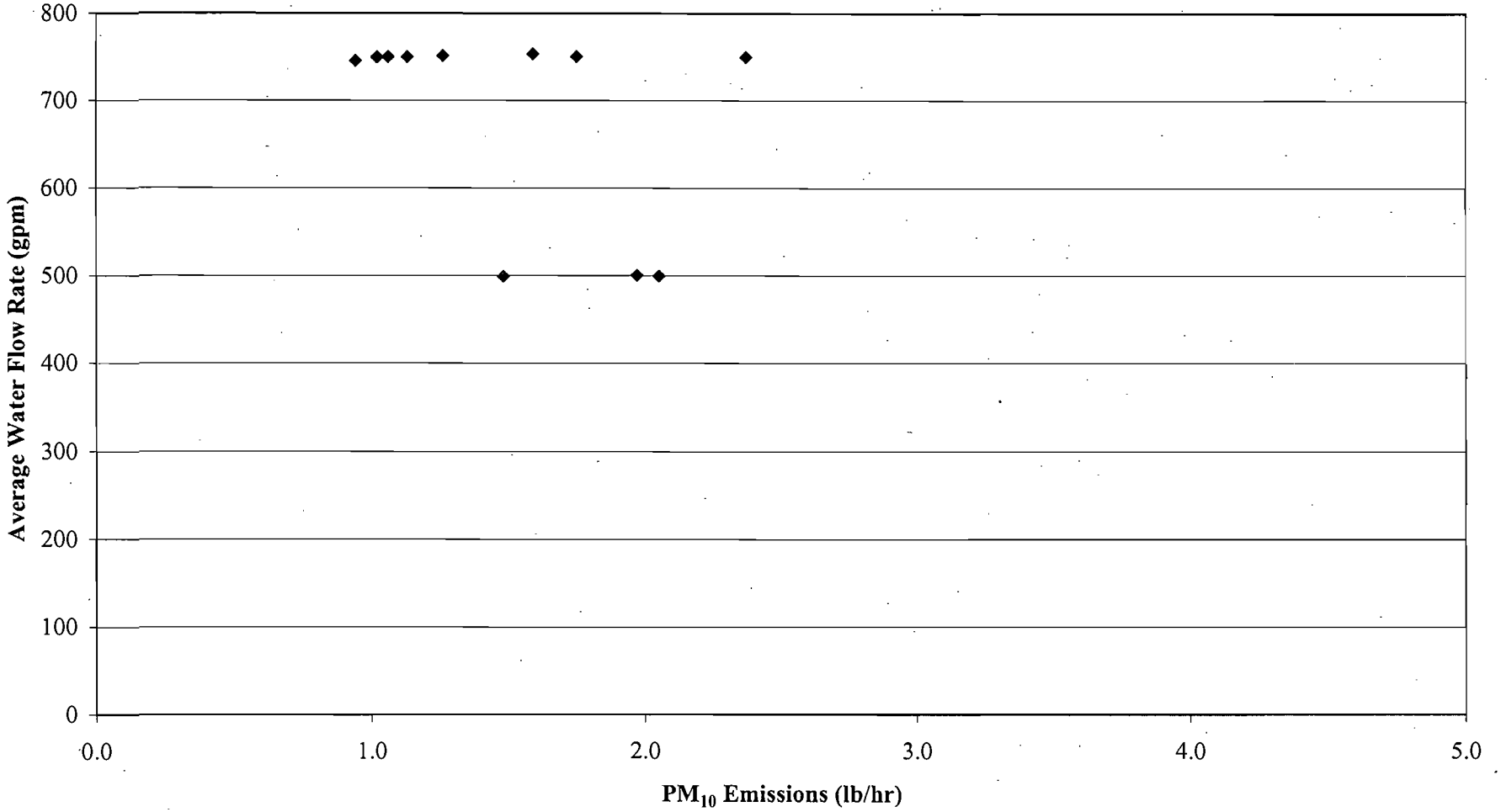

FIGURE 7-4
PM_{10} vs. Pressure Drop
White Sugar Dryer No. 2

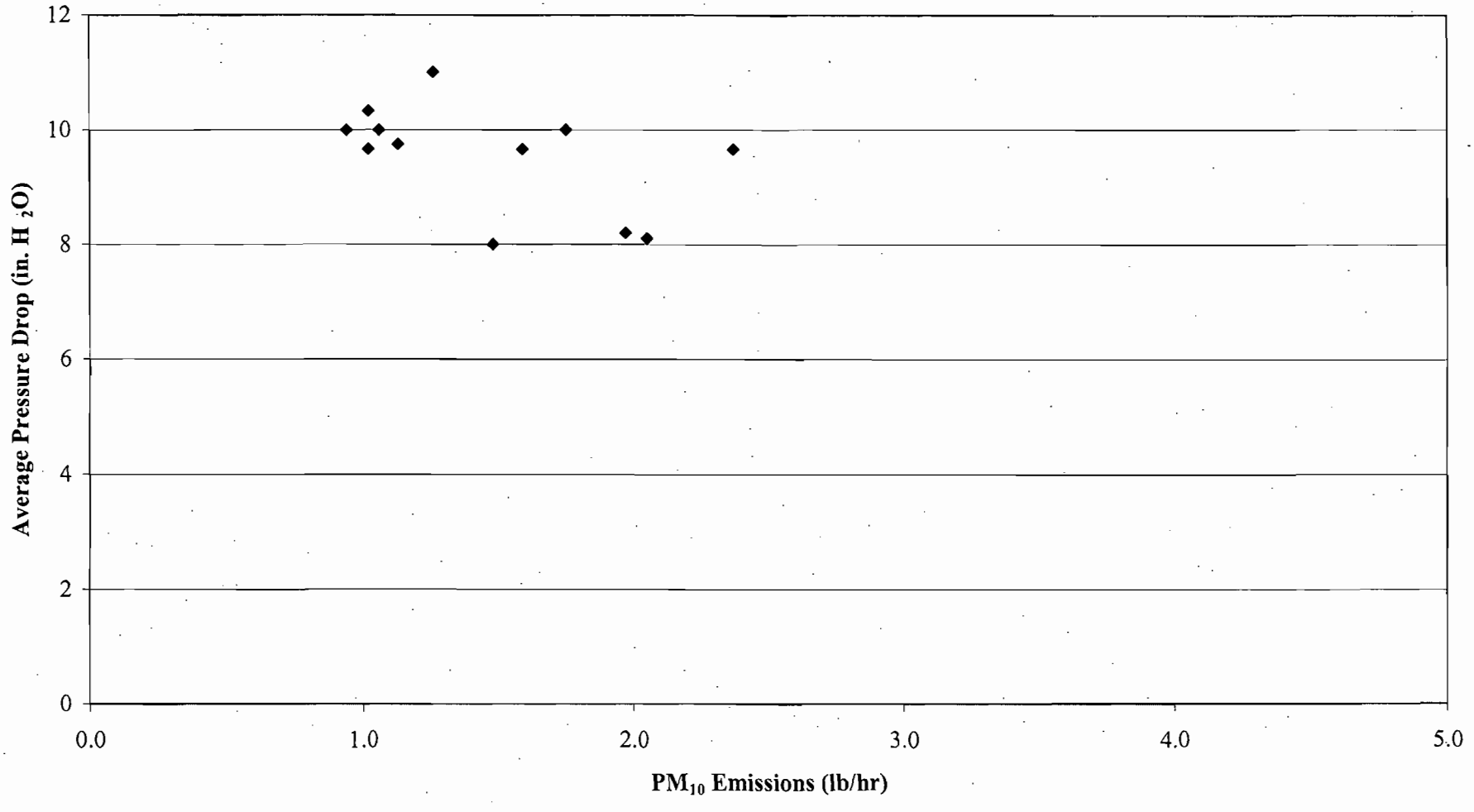

TABLE B-1

BOILER PM EMISSION TESTS, CLEWISTON

Unit	Run Number	Boiler Type	Test Date	Stack Gas Flow Rate (dscfm)	Stack Gas Flow Rate (acfm)	Steam Rate (lb/hr)	Heat Input Rate (MMBtu/hr)	Bagasse Burning Rate (TPH)	Allowable PM Emissions (EPA Method 5)		Actual PM Emissions (EPA Method 5)		Avg. Liquid Pressure (psig)	Avg. Water Flow (gpm)	Avg. Pressure Drop (in. H_2O)
									lb/hr	lb/MMBtu	lb/hr	lb/MMBtu			
Boiler 2	1	Vibrating Grate	01/22/96	105,831	163,718	177,188	371.7	51.63	92.93	0.250	73.62	0.198			6.0
Boiler 2	2	Vibrating Grate	01/22/96	94,417	150,521	177,188	371.7	51.63	92.93	0.250	66.10	0.178			6.0
Boiler 2	3	Vibrating Grate	01/22/96	93,727	154,170	181,184	379.7	52.74	94.93	0.250	52.37	0.138			6.0
Boiler 2	1	Vibrating Grate	01/12/98	107,485	165,905	172,286	363.3	50.45	90.82	0.250	45.54	0.125			3.0 *
Boiler 2	2	Vibrating Grate	01/12/98	106,311	165,445	173,824	366.9	50.96	91.72	0.250	48.70	0.133			3.0 *
Boiler 2	3	Vibrating Grate	01/12/98	104,790	166,166	175,522	370.3	51.43	92.57	0.250	69.51	0.188			
Boiler 2	1	Vibrating Grate	01/13/98	126,475	198,634	201,739	425.1	59.03	101.08	0.240	71.72	0.169			8.5
Boiler 2	2	Vibrating Grate	01/13/98	122,422	195,643	202,059	426.2	59.19	106.55	0.250	71.59	0.168			8.5
Boiler 2	3	Vibrating Grate	01/13/98	125,162	197,964	202,388	427.0	59.31	101.42	0.240	98.31	0.230			8.5
Boiler 2	1	Vibrating Grate	12/12/00	113,638	186,994	169,459	364.4	50.61	87.57	0.240	47.53	0.130	67.0		8.5
Boiler 2	2	Vibrating Grate	12/12/00	108,878	181,681	174,167	373.3	51.84	88.14	0.236	60.87	0.163	61.0		8.2
Boiler 2	3	Vibrating Grate	12/12/00	107,998	181,348	163,714	350.3	48.65	81.96	0.234	77.50	0.221	68.0		8.7
Boiler 2	1	Vibrating Grate	12/12/01	141,555	214,981	212,055	435.1	60.43	103.50	0.238	112.59	0.259			9.3
Boiler 2	2	Vibrating Grate	12/12/01	125,108	187,343	182,535	374.2	51.97	93.55	0.250	73.38	0.196			
Boiler 2	3	Vibrating Grate	12/12/01	127,585	200,931	195,211	403.0	55.97	100.75	0.250	108.53	0.269			
Boiler 2	1	Vibrating Grate	12/17/02	135,626	203,449	173,239	354.6	49.25	88.64	0.250	64.49	0.182	91.8		7.1
Boiler 2	2	Vibrating Grate	12/17/02	133,618	201,955	174,167	356.6	49.53	89.16	0.250	65.36	0.183	90.0		7.1
Boiler 2	3	Vibrating Grate	12/17/02	134,529	201,199	189,851	389.0	54.03	97.26	0.250	67.82	0.174	80.6		6.3
Boiler 2	1	Vibrating Grate	11/18/03	125,842	196,117	183,478	387.5	53.82	96.88	0.250	88.89	0.229	51.2	75 *	10.0
Boiler 2	2	Vibrating Grate	11/18/03	132,395	205,353	190,746	405.7	56.35	101.42	0.250	76.69	0.189	50.4	70 *	9.0
Boiler 2	3	Vibrating Grate	11/18/03	123,840	199,614	192,537	407.4	56.58	101.84	0.250	72.78	0.179	45.0	65 *	9.0
Boiler 2	1	Vibrating Grate	11/12/04	153,146	235,990	189,565	399.1	55.43	95.26	0.239	88.69	0.222	123.6	113 *	9.5
Boiler 2	2	Vibrating Grate	11/12/04	150,689	235,118	198,000	417.9	58.05	102.27	0.245	72.18	0.173	130.0	123 *	9.1
Boiler 2	3	Vibrating Grate	11/17/04	174,817	260,767	197,838	424.1	58.91	101.25	0.239	26.34	0.062			
Boiler 2	1	Vibrating Grate	12/14/05	116,370	174,405	183,478	383.2	53.22	85.21	0.222	77.93	0.203	115.0	354	12.0
Boiler 2	2	Vibrating Grate	12/14/05	140,607	219,765	170,000	354.5	49.24	88.62	0.250	63.04	0.178	115.0	354	12.0
Boiler 2	3	Vibrating Grate	12/14/05	137,722	214,970	177,500	371.4	51.58	92.84	0.241	64.10	0.173	115.0	353	12.0
Boiler 2	1	Vibrating Grate	11/21/06	125,586	184,473	161,053	336.7	46.76	84.17	0.250	52.61	0.156		230	7.5
Boiler 2	2	Vibrating Grate	11/21/06	119,482	177,278	170,137	358.9	49.85	89.73	0.250	66.78	0.186		230	7.5
Boiler 2	3	Vibrating Grate	11/21/06	119,232	178,147	173,043	367.7	51.07	91.93	0.250	66.81	0.182		230	7.5

* Not considered to be representative of normal operation.

TABLE B-1

BOILER PM EMISSION TESTS, CLEWISTON

Unit	Run Number	Boiler Type	Test Date	Stack Gas Flow Rate (dscfm)	Stack Gas Flow Rate (acfm)	Steam Rate (lb/hr)	Heat Input Rate (MMBtu/hr)	Bagasse Burning Rate [1] (TPH)	Allowable PM Emissions (EPA Method 5)		Actual PM Emissions (EPA Method 5)		Avg. Liquid Pressure (psig)	Avg. Water Flow (gpm)	Avg. Pressure Drop (in. H_2O)
									lb/hr	lb/MMBtu	lb/hr	lb/MMBtu			
Boiler 1	1	Vibrating Grate	01/16/96	113,127	183,707	194,211	410.0	56.94	102.49	0.250	99.14	0.242			9.5
Boiler 1	2	Vibrating Grate	01/16/96	117,058	187,835	202,025	426.0	59.17	106.50	0.250	64.43	0.151			9.3
Boiler 1	3	Vibrating Grate	01/16/96	118,730	191,603	219,200	461.0	64.02	115.24	0.250	67.68	0.147			
Boiler 1	1	Vibrating Grate	01/07/97	125,679	200,419	203,284	426.5	59.24	106.63	0.250	57.91	0.136			9.5
Boiler 1	2	Vibrating Grate	01/07/97	123,272	198,803	210,000	440.8	61.22	110.21	0.250	62.38	0.142			9.5
Boiler 1	3	Vibrating Grate	01/07/97	122,608	200,926	211,765	443.9	61.65	110.97	0.250	56.04	0.126			9.5
Boiler 1	1	Vibrating Grate	01/08/98	148,591	223,239	193,433	404.9	56.24	101.24	0.250	39.25	0.097			9.8
Boiler 1	2	Vibrating Grate	01/08/98	139,359	211,566	209,630	440.0	61.11	103.59	0.240	42.80	0.097			10.8
Boiler 1	3	Vibrating Grate	01/08/98	141,780	215,994	204,507	430.3	59.76	103.60	0.240	54.89	0.128			10.0
Boiler 1	1	Vibrating Grate	12/08/00	116,457	185,495	193,151	406.5	56.46	99.11	0.244	78.60	0.193	67.0		9.0
Boiler 1	2	Vibrating Grate	12/08/00	117,435	189,657	198,261	419.3	58.23	101.82	0.243	69.20	0.165	62.0		7.0
Boiler 1	3	Vibrating Grate	12/08/00	114,205	187,798	195,833	414.0	57.50	100.68	0.243	80.96	0.196	65.0		7.0
Boiler 1	1	Vibrating Grate	12/05/01	122,015	182,934	198,000	403.3	56.01	96.73	0.240	58.44	0.145			8.8
Boiler 1	2	Vibrating Grate	12/05/01	118,508	179,141	201,127	406.5	56.46	96.79	0.238	47.69	0.117			8.0
Boiler 1	3	Vibrating Grate	12/05/01	118,063	177,096	205,588	416.0	57.78	99.18	0.238	51.10	0.123			7.5
Boiler 1	1	Vibrating Grate	11/20/02	139,322	201,193	192,329	386.2	53.64	92.96	0.241	63.82	0.165	91.6		10.5
Boiler 1	2	Vibrating Grate	11/20/02	132,473	194,240	197,391	398.7	55.37	95.88	0.240	81.67	0.205	94.0		10.2
Boiler 1	3	Vibrating Grate	11/20/02	139,170	200,673	193,333	412.8	57.33	98.68	0.239	70.70	0.171	94.8		10.3
Boiler 1	1	Vibrating Grate	11/14/03	147,286	202,987	196,709	409.0	56.81	102.26	0.250	49.17	0.120	75.0	56 *	9.0
Boiler 1	2	Vibrating Grate	11/14/03	152,860	210,916	197,813	414.8	57.61	103.69	0.250	84.77	0.204	75.0	57 *	9.0
Boiler 1	3	Vibrating Grate	11/14/03	155,202	215,710	204,000	412.2	57.24	103.04	0.250	83.72	0.203	75.0	56 *	9.0
Boiler 1	1	Vibrating Grate	01/13/05	161,467	245,339	197,391	429.2	59.60	107.29	0.250	77.96	0.182	120.0	370	11.6
Boiler 1	2	Vibrating Grate	01/13/05	164,310	250,264	186,835	402.0	55.83	100.50	0.250	76.50	0.190	120.0	364	11.5
Boiler 1	3	Vibrating Grate	01/13/05	162,661	244,548	195,652	425.0	59.02	106.24	0.250	81.49	0.192	125.0	364	11.6
Boiler 1	1	Vibrating Grate	12/16/05	135,375	215,916	174,000	362.1	50.28	90.51	0.250	120.04	0.332	140.0	372	12.0
Boiler 1	2	Vibrating Grate	12/16/05	136,281	216,285	179,143	376.3	52.26	94.07	0.250	61.55	0.164	140.0	387	12.0
Boiler 1	3	Vibrating Grate	12/16/05	137,233	212,492	177,568	370.9	51.51	92.71	0.250	48.20	0.130	140.0	367	12.0
Boiler 1	1	Vibrating Grate	11/28/06	112,707	175,055	165,882	346.5	48.13	80.79	0.233	38.73	0.112	89.2	212	8.0
Boiler 1	2	Vibrating Grate	11/28/06	114,320	177,369	171,045	355.4	49.36	85.46	0.240	41.90	0.118	90.8	212	8.1
Boiler 1	3	Vibrating Grate	11/28/06	113,491	180,542	165,217	346.2	48.08	84.97	0.245	46.34	0.134	90.6	212	7.9

* Not considered to be representative of normal operation.

TABLE B-1

BOILER PM EMISSION TESTS, CLEWISTON

Unit	Run Number	Boiler Type	Test Date	Stack Gas Flow Rate (dscfm)	Stack Gas Flow Rate (acfm)	Steam Rate (lb/hr)	Heat Input Rate (MMBtu/hr)	Bagasse Burning Rate (TPH)	Allowable PM Emissions (EPA Method 5)		Actual PM Emissions (EPA Method 5)		Avg. Liquid Pressure (psig)	Avg. Water Flow (gpm)	Avg. Pressure Drop (in. H_2O)
									lb/hr	lb/MMBtu	lb/hr	lb/MMBtu			
Boiler 4	1	Traveling Grate	02/23/94	134,590	215,068	283,043	616.9	85.68	92.54	0.150	81.72	0.132	40.5	428	
Boiler 4	2	Traveling Grate	02/23/94	136,057	218,507	290,769	633.1	87.94	94.97	0.150	73.42	0.116	40.6	430	
Boiler 4	3	Traveling Grate	02/23/94	132,839	216,547	284,308	618.0	85.83	92.70	0.150	93.94	0.152	41.2	433	
Boiler 4	1	Traveling Grate	12/30/94	152,950	222,172	288,750	626.8	87.06	94.02	0.150	88.74	0.142	50.0	492	10.0
Boiler 4	2	Traveling Grate	12/30/94	142,730	220,121	280,986	609.4	84.64	91.41	0.150	70.23	0.115	50.0	492	10.0
Boiler 4	3	Traveling Grate	12/30/94	144,948	225,530	281,918	614.3	85.32	92.15	0.150	73.08	0.119	50.0	492	10.0
Boiler 4	1	Traveling Grate	12/22/95	147,476	227,747	290,548	617.5	85.76	92.62	0.150	59.28	0.096	53.0	300	9.5
Boiler 4	2	Traveling Grate	12/22/95	143,821	222,383	280,946	597.7	83.01	89.65	0.150	63.06	0.106	54.0	300	9.5
Boiler 4	3	Traveling Grate	12/22/95	145,645	221,056	291,200	617.4	85.75	92.61	0.150	52.29	0.085	55.0	300	9.5
Boiler 4	1	Traveling Grate	12/17/96	154,554	236,304	289,909	608.8	84.56	91.32	0.150	67.58	0.111	48.0	245	9.5
Boiler 4	2	Traveling Grate	12/17/96	159,316	241,659	291,818	610.9	84.85	91.64	0.150	70.56	0.116	48.0	245	9.5
Boiler 4	3	Traveling Grate	12/17/96	156,697	239,434	286,462	601.1	83.49	90.17	0.150	61.82	0.103	48.0	245	9.5
Boiler 4	1	Traveling Grate	01/05/00	136,759	210,179	238,378	509.0	70.69	73.93	0.145	66.45	0.131		380	8.5
Boiler 4	2	Traveling Grate	01/05/00	136,322	209,218	241,644	514.5	71.46	75.28	0.146	64.16	0.125		390	9.0
Boiler 4	3	Traveling Grate	01/05/00	135,432	208,934	236,800	504.8	70.11	73.99	0.147	55.95	0.111		420	8.5
Boiler 4	1	Traveling Grate	11/17/00	161,372	248,028	258,400	558.2	77.53	83.72	0.150	50.40	0.090	66.4	384	10.2
Boiler 4	2	Traveling Grate	11/17/00	160,074	248,560	256,667	554.7	77.04	83.21	0.150	60.47	0.109	66.4	385	9.6
Boiler 4	3	Traveling Grate	11/17/00	161,936	249,043	262,192	566.9	78.74	85.03	0.150	51.23	0.090			9.3
Boiler 4	1	Traveling Grate	01/23/02	158,108	238,305	255,882	549.8	76.37	82.48	0.150	48.91	0.089	52.0	477	12.7
Boiler 4	2	Traveling Grate	01/23/02	151,705	231,241	257,647	555.6	77.17	83.34	0.150	32.17	0.058	53.0	482	10.7
Boiler 4	3	Traveling Grate	01/23/02	155,993	236,906	260,294	561.3	77.96	84.20	0.150	34.81	0.062	67.0	544	9.5
Boiler 4	1	Traveling Grate	12/18/02	167,367	250,551	272,000	600.4	83.39	90.06	0.150	66.32	0.110	64.0	533	15.5
Boiler 4	2	Traveling Grate	12/18/02	164,949	247,408	272,000	599.9	83.32	89.98	0.150	57.41	0.096	62.2	534	14.2
Boiler 4	3	Traveling Grate	12/18/02	161,294	241,460	274,783	601.7	83.57	90.26	0.150	54.65	0.091	62.8	537	16.5
Boiler 4	4	Traveling Grate	12/19/02	163,340	245,494	284,250	627.4	87.13					64.5	491	13.2
Boiler 4	1	Traveling Grate	11/21/03	184,631	280,071	265,479	579.9	80.54	86.98	0.150	84.74	0.146	51.0	359	22.5
Boiler 4	2	Traveling Grate	11/21/03	187,732	272,428	264,167	576.9	80.12	86.53	0.150	72.85	0.126	45.8	406	22.4
Boiler 4	3	Traveling Grate	11/21/03	179,768	261,129	260,000	567.1	78.77	85.07	0.150	61.34	0.108	55.4	409	22.4
Boiler 4	1	Traveling Grate	11/24/04	164,581	254,686	267,115	588.5	81.73	88.27	0.150	71.68	0.122	72.9	493	11.0
Boiler 4	2	Traveling Grate	11/24/04	165,619	262,011	259,737	572.2	79.47	85.83	0.150	74.10	0.130	71.7	492	11.0
Boiler 4	3	Traveling Grate	11/24/04	165,111	263,455	246,923	542.8	75.39	81.42	0.150	79.60	0.147	72.4	490	11.0
Boiler 4	4	Traveling Grate	11/24/04	166,378	265,717	254,526	558.2	77.53	83.73	0.150	74.71	0.134	70.7	419	11.0
Boiler 4	1	Traveling Grate	02/10/05	156,977	228,241	237,600	515.1	71.54	77.26	0.150	58.57	0.114	78.6	611	11.0
Boiler 4	2	Traveling Grate	02/10/05	158,258	233,152	239,178	516.5	71.73	77.47	0.150	59.15	0.115	80.2	623	10.9
Boiler 4	3	Traveling Grate	02/10/05	161,994	235,662	230,649	500.5	69.52	75.08	0.150	53.51	0.107	78.6	623	11.0
Boiler 4	1	Traveling Grate	01/13/06	127,859	203,260	229,014	478.3	66.43	71.75	0.150	53.96	0.113	50.0	356	9.9
Boiler 4	2	Traveling Grate	01/13/06	123,326	198,482	244,225	510.4	70.88	76.55	0.150	34.27	0.067	51.0	360	10.0
Boiler 4	3	Traveling Grate	01/13/06	122,129	196,063	236,522	498.0	69.16	74.70	0.150	48.24	0.097	51.4	361	10.0
Boiler 4	1	Traveling Grate	12/01/06	153,199	228,528	242,466	532.0	73.89	76.24	0.143	44.97	0.085	53.0	300	6.5
Boiler 4	2	Traveling Grate	12/01/06	151,842	225,833	245,070	520.0	72.22	73.65	0.142	46.86	0.090	52.8	296	6.4
Boiler 4	3	Traveling Grate	12/01/06	146,862	225,359	255,000	554.0	76.94	78.81	0.142	52.31	0.094	53.2	295	6.5

TABLE B-1

BOILER PM EMISSION TESTS, CLEWISTON

Unit	Run Number	Boiler Type	Test Date	Stack Gas Flow Rate (dscfm)	Stack Gas Flow Rate (acfm)	Steam Rate (lb/hr)	Heat Input Rate (MMBtu/hr)	Bagasse Burning Rate ¹ (TPH)	Allowable PM Emissions (EPA Method 5) lb/hr	Allowable PM Emissions (EPA Method 5) lb/MMBtu	Actual PM Emissions (EPA Method 5) lb/hr	Actual PM Emissions (EPA Method 5) lb/MMBtu	ESP Secondary Power Input (kW)
Boiler 7	1	Spreader-Stoker Vibrating Grate	02/04/05	165,392	296,331	232,174	494 28	68 65	14 83	0 030	11 57	0 023	49 3
Boiler 7	2	Spreader-Stoker Vibrating Grate	02/04/05	161,579	296,174	228,000	487 84	67 76	14.64	0 030	6 84	0 014	55 1
Boiler 7	3	Spreader-Stoker Vibrating Grate	02/04/05	159,426	285,860	223,099	475 52	66.04	14 27	0 030	13.03	0.027	70 0
Boiler 7	1	Spreader-Stoker Vibrating Grate	01/05/06	184,525	318,378	318,300	659 85	91.65	19 80	0 030	13 47	0 020	60 1
Boiler 7	2	Spreader Stoker Vibrating Grate	01/05/06	178,105	315,125	348,674	721 46	100 20	21 64	0 030	9 96	0.014	63 9
Boiler 7	3	Spreader-Stoker Vibrating Grate	01/05/06	173,265	306,013	349,209	720 61	100.08	21 62	0 030	8 77	0 012	67 9
Boiler 7	1	Spreader-Stoker Vibrating Grate	01/25/07	185,288	318,417	307,597	637.19	88 50	19 12	0 030	22 05	0 035	96 5
Boiler 7	2	Spreader-Stoker Vibrating Grate	01/25/07	174,015	301,630	319,097	658 39	91 44	19 75	0 030	16 91	0.026	95 5
Boiler 7	3	Spreader-Stoker Vibrating Grate	01/25/07	175,714	301,314	290,569	599 18	83 22	17.98	0 030	14 46	0.024	103 9

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

Footnotes:

¹ Assumed 3,600 Btu/lb average heat content for wet bagasse, except where noted.

TABLE B-2
WHITE SUGAR DRYER NO. 2 PM EMISSION TESTS

Run Number	Test Date	Start/End Time	% Load	Stack Gas Flow Rate (dscfm)	Stack Gas Flow Rate (acfm)	Allowable PM Emissions (EPA Method 5)		Actual PM Emissions (EPA Method 5)		Avg. Water Flow (gpm)	Avg. Pressure Drop		Scrubber Water Sugar Content (Brix)	Particulate Data		
						lb/hr	gr/dscf	lb/hr	gr/dscf		Cyclone (in. H_2O)	Scrubber (in. H_2O)		Filter (mg)	Wash (mg)	% Wash of Total
1	02/20/07	0925-1030	100	77,874	89,921	15.0	--	4.78	0.0072	528	3.0	8.2	10	1.6	16.4	91.1
2	02/20/07	1134-1240	96	78,061	91,456	15.0	--	5.38	0.0080	503	3.0	8.0	8	0.8	19.4	96.0
3	02/20/07	1354-1459	91	76,039	89,248	15.0	--	5.88	0.0090	501	3.0	8.0	9	1.1	20.8	95.0
Average=			**96**	**77,325**	**90,208**	**15.0**	**--**	**5.3**	**0.0081**	**510**	**3.0**	**8.1**	**9**			**94.0**
4	02/21/07	1455-1559	103	76,414	89,147	15.0	--	9.36	0.0143	752	3.0	8.2	9	1.5	32.6	95.6
5	02/22/07	0836-0939	85	77,229	89,360	15.0	--	7.43	0.0112	747	3.0	8.2	9	1.4	25.1	94.7
6	02/22/07	1004-1107	88	77,871	90,404	15.0	--	7.07	0.0106	752	3.0	8.0	8	0.8	25.1	96.9
Average=			**92**	**77,171**	**89,637**	**15.0**	**--**	**8.0**	**0.0120**	**750**	**3.0**	**8.1**	**9**			**95.7**

Notes:
lb/hr = pounds per hour
gr/dscf = grains per dry standard cubic foot
mg = milligrams

TABLE B-3
WHITE SUGAR DRYER NO. 2 PM_{10} EMISSION TESTS

Run Number	Test Date	Start/End Time	% Load	Stack Gas Flow Rate (dscfm)	Stack Gas Flow Rate (acfm)	Allowable PM_{10} Emissions		Actual PM_{10} Emissions (EPA Method 210A)		Avg. Water Flow (gpm)	Avg. Pressure Drop		Scrubber Water Sugar Content (Brix)	Particulate Data		
						lb/hr	gr/dscf	lb/hr	gr/dscf		Cyclone (in. H_2O)	Scrubber (in. H_2O)		Filter (mg)	Wash (mg)	% Wash of Total
1	05/23/06	1015-1040	50	85,299	93,003	4.2	0.005	2.37	0.00324	750	4.7	9.7	--	1.1	1.5	57.7
2	05/23/06	1127-1200	50	85,082	92,570	4.2	0.005	1.59	0.00218	753	4.3	9.7	--	0.7	1	58.8
3	05/23/06	1220-1254	50	85,713	92,883	4.2	0.005	1.13	0.00154	750	4.0	9.8	--	0.7	0.5	41.7
4	05/23/06	1400-1433	100	83,395	91,246	4.2	0.005	1.02	0.00143	750	4.0	9.7	--	0.4	0.8	66.7
5	05/23/06	1450-1554	100	84,141	91,790	4.2	0.005	1.75	0.00242	751	4.0	10.0	--	1	1	50.0
6	05/23/06	1545-1619	100	83,009	90,815	4.2	0.005	1.06	0.00149	750	4.0	10.0	--	0.5	0.7	58.3
7	05/25/06	1024-1058	100	83,263	91,101	4.2	0.005	1.02	0.00143	750	4.0	10.3	--	0.5	0.7	58.3
8	05/25/06	1110-1144	100	83,058	90,876	4.2	0.005	0.94	0.00131	746	4.0	10.0	--	0.4	0.7	63.6
9	05/25/06	1153-1228	100	82,799	90,877	4.2	0.005	1.26	0.00177	751	3.7	11.0	--	0.7	0.8	53.3
Average=				**83,973**	**91,684**	**4.2**	**0.005**	**1.3**	**0.00187**	**750**	**4.1**	**10.0**				**56.5**
1	02/21/07	1008-1108	102	79,189	91,417	4.2	0.005	2.05	0.00302	500	3.0	8.1	8	1.2	3.6	75.0
2	02/21/07	1135-1235	97	79,637	91,805	4.2	0.005	1.97	0.00288	501	3.0	8.2	8	1.4	3.2	69.6
3	02/21/07	1314-1414	101	79,444	91,660	4.2	0.005	1.48	0.00218	499	3.0	8.0	8	1.6	1.9	54.3
Average=			**100**	**79,423**	**91,627**	**4.2**	**0.005**	**1.8**	**0.00269**	**500**	**3.0**	**8.1**	**8.0**			**66.3**

Notes:
lb/hr = pounds per hour
gr/dscf = grains per dry standard cubic foot
mg = milligrams