Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL USA 32653
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www.golder.com

November 5, 2004 0437576

Florida Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road, MS # 5500
Tallahassee, FL 32399-2400

Attention : Mr. Jeff Koerner, P. E.

RE: United States Sugar Corporation- Clewiston Mill
Temporary Firing of Wood Chips

Dear Mr. Koerner:

Please find enclosed four (4) copies of an air construction permit application for the temporary (up to 1-year) firing of wood chips in the boilers at the Clewiston Mill. The purpose of this activity is in part to aid in disposing of hurricane-generated clean wood debris. Please call or e-mail me if you have any questions concerning this application.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

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

DB/nav

Enclosure

cc: D. Griffin, USSC
P. Briggs, USSC
R. Blackburn, FDEP South District

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APPLICATION FOR WOODCHIP BURNING IN BOILER NOS. 1, 2, 3, 4, 7, AND 8

U.S. SUGAR CORPORATION
CLEWISTON MILL

Prepared For:
United States Sugar Corporation
111 Ponce DeLeon Avenue
Clewiston, Florida 33440

Prepared By:
Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500

November 2004
0437576

DISTRIBUTION:
4 Copies – FDEP
2 Copies – U.S. Sugar Corporation
1 Copy – Golder Associates Inc.

Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

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

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

Air Operation Permit – Use this form to apply for:

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

Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: **United States Sugar Corporation**
2. Site Name: **U.S. Sugar Clewiston Mill**
3. Facility Identification Number: **0510003**
4. Facility Location...:
   Street Address or Other Locator: **W.C. Owens Ave. and S.R. 832**
   City: **Clewiston** County: **Hendry** Zip Code: **33440**
5. Relocatable Facility? ☐ Yes ☒ No
6. Existing Title V Permitted Facility? ☒ Yes ☐ No

Application Contact

1. Application Contact Name: **William A. Raiola, Vice President, Sugar Processing Operations**
2. Application Contact Mailing Address...
   Organization/Firm: **United States Sugar Corporation**
   Street Address: **111 Ponce DeLeon Ave.**
   City: **Clewiston** State: **Florida** Zip Code: **33440**
3. Application Contact Telephone Numbers...
   Telephone: **(863) 983-8121** ext. Fax: **(863) 902-2729**
4. Application Contact Email Address: **wraiola@ussugar.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	11-9-04
2. Project Number(s):	0510003-028-AC
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

APPLICATION INFORMATION

Purpose of Application

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

Air Construction Permit

☐ Air construction permit.

Air Operation Permit

☐ Initial Title V air operation permit.

☒ Title V air operation permit revision.

☐ Title V air operation permit renewal.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

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

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

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

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

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

Application Comment

Air Construction Permit application to fire Boiler Nos. 1, 2, 3, 4, 7, and 8 with clean wood/bark for a period up to 1 year.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
001	Boiler No. 1	AC1A	n/a
002	Bolier No. 2	AC1A	n/a
003	Boiler No. 3	AC1A	n/a
009	Boiler No. 4	AC1A	n/a
014	Bolier No. 7	AC1A	n/a
028	Boiler No. 8	AC1A	n/a

Application Processing Fee

Check one: ☐ Attached - Amount: $_____ ☒ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name :

2. Owner/Authorized Representative Mailing Address...
   Organization/Firm:
   Street Address:
   City: State: Zip Code:

3. Owner/Authorized Representative Telephone Numbers...
   Telephone: ( ) - ext. Fax: ( ) -

4. Owner/Authorized Representative Email Address:

5. Owner/Authorized Representative Statement:

I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.

_____ _____

Signature Date

APPLICATION INFORMATION

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:
   William A. Raiola, Vice President, Sugar Processing Operations

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 DeLeon Ave.**
   City: **Clewiston** State: **FL** Zip Code: **33440**

4. Application Responsible Official Telephone Numbers...
   Telephone: **(863) 983-8121** ext. Fax: **(863) 902-2729**

5. Application Responsible Official Email Address: **wraiola@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 11/5/04 Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Golder Associates Inc.****
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**
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

11/5/04
Date

(seal)

* Attach any exception to certification statement.

** Board of Professional Engineers Certificate of Authorization #00001670

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone **17** East (km) **506.1** North (km) **2956.9**		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) **26/44/06** Longitude (DD/MM/SS) **80/56/19**	
3. Governmental Facility Code: **0**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **20**	6. Facility SIC(s): **2061, 2062**
7. Facility Comment :			

Facility Contact

1. Facility Contact Name: **Wiliam A. Raiola, Vice President, Sugar Processing Operations**
2. Facility Contact Mailing Address... Organization/Firm: **United States Sugar Corporation** Street Address: **111 Ponce DeLeon Ave.** City: **Clewiston** State: **FL** Zip Code: **33440**
3. Facility Contact Telephone Numbers: Telephone: **(863) 983-8121** ext. Fax: **(863) 902-2729**
4. Facility Contact Email Address: **wraiola@ussugar.com**

Facility Primary Responsible Official

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

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

Facility Regulatory Classifications

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

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

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
Particulate Matter Total - PM	A	No
Sulfur Dioxide - SO_2	A	No
Nitrogen Oxides - NO_x	A	No
Carbon Monoxide - CO	A	No
Particulate Matter - PM_{10}	A	No
Sulfuric Acid Mist - SAM	A	No
Total Hazardous Air Pollutants - HAPs	A	No
Volatile Organic Compounds - VOC	A	No
Acetaldehyde - H001	A	No
Benzene - H017	A	No
Formaldehyde - H095	A	No
Phenol - H144	A	No
Polycyclic Organic Matter - H151	A	No
Styrene - H163	A	No
Toluene - H169	A	No
Naphthalene - H132	A	No
Dibenzofuran - H058	A	No

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID:____ ☒ Previously Submitted, Date:3/2003
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID:____ ☒ Previously Submitted, Date:3/2003
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:____

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: ☐ Attached, Document ID:_____ ☒ Not Applicable (existing permitted facility)
2. Description of Proposed Construction or Modification: ☐ Attached, Document ID: ____
3. Rule Applicability Analysis: ☐ Attached, Document ID: ____
4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): ☐ Attached, Document ID:____ ☒ Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.): ☐ Attached, Document ID:____ ☒ Not Applicable
6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.): ☐ Attached, Document ID:____ ☒ Not Applicable
7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.): ☐ Attached, Document ID:____ ☒ Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.): ☐ Attached, Document ID:____ ☒ Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.): ☐ Attached, Document ID:____ ☒ Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): ☐ Attached, Document ID:____ ☒ Not Applicable

APPLICATION INFORMATION

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):
   ☐ Attached, Document ID:_____ ☒ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities (Required for initial/renewal applications only):
   ☐ Attached, Document ID:_____ ☒ Not Applicable (revision application)

2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):
   ☒ Attached, Document ID: **Attachment A**
   ☐ Not Applicable (revision application with no change in applicable requirements)

3. Compliance Report and Plan (Required for all initial/revision/renewal applications):
   ☐ Attached, Document ID:_____
   Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.

4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):
   ☐ Attached, Document ID:_____
   ☐ Equipment/Activities On site but Not Required to be Individually Listed
   ☒ Not Applicable

5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) :
   ☐ Attached, Document ID:_____ ☒ Not Applicable

6. Requested Changes to Current Title V Air Operation Permit:
   ☒ Attached, Document ID: **Attachment A** ☐ Not Applicable

Additional Requirements Comment

BOILER NO. 1

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: **68.89**	5. Maximum Annual Rate: **603,467**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **7.2**
10. Segment Comment: **Based on 496 MMBtu/hr and a heating value of 3,600 Btu/lb (wet) for bagasse. Annual usage based on 8,760 hours per year of operation.**		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): **External Combustion Boilers; Industrial; Residual Oil; Grade 6**		
2. Source Classification Code (SCC): **1-02-004-01**	3. SCC Units: **1000 Gallons Burned**	
4. Maximum Hourly Rate: **1.500**	5. Maximum Annual Rate: **13,140**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **2.5**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **150**
10. Segment Comment: **Maximum hourly and annual rates based on proposed 1,500 gal/hr and 8,760 hr/yr for No. 6 fuel oil. Also includes facility-generated on-spec used oil and up to 500 cubic yards per season of petroleum contaminated soils.**		

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 Waste (>50,000 lb/hr steam)**		
2. Source Classification Code (SCC): **1-02-009-02**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **55.11**	5. Maximum Annual Rate: **24,906**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **9**
10. Segment Comment: **Maximum hourly rate based on 496 MMBtu/hr and a heating value of 4,500 Btu/lb (wet) for wood/bark waste. Maximum annual usage based on 224,159 MMBtu/yr. See Attachment A, Table 1.**		

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:		

BOILER NO. 2

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: **62.08**	5. Maximum Annual Rate: **543,850**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **7.2**
10. Segment Comment: **Based on 447 MMBtu/hr and a heating value of 3,600 Btu/lb (wet) for bagasse. Annual usage based on 8,760 hours per year of operation.**		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): **External Combustion Boilers; Industrial; Bagasse; Distillate Oil; Grades 1 and 2**		
2. Source Classification Code (SCC): **1-02-005-01**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **1.500**	5. Maximum Annual Rate: **13,140**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **2.5**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **150**
10. Segment Comment: **Maximum hourly and annual rates based on proposed 1,500 gal/hr and 8,760 hr/yr for No. 6 fuel oil. Also includes facility-generated on-spec used oil and up to 500 cubic yards per season of petroleum contaminated soils.**		

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 Waste (>50,000 lb/hr Steam)**		
2. Source Classification Code (SCC): **1-02-009-02**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **49.67**	5. Maximum Annual Rate: **22,446**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **9**
10. Segment Comment: **Maximum hourly rate based on 447 MMBtu/hr and a heating value of 4,500 Btu/lb (wet) for wood/bark waste. Maximum annual usage based on 202,015 MMBtu/yr. See Attachment A, Table 1.**		

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:		

BOILER NO. 3

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: **36.81**	5. Maximum Annual Rate: **322,417**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **7.2**
10. Segment Comment: **Based on 265 MMBtu/hr and a heating value of 3,600 Btu/lb (wet) for bagasse. Annual usage based on 8,760 hours per year of operation.**		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): **External Combustion Boilers; Industrial; Residual Oil; Grade No. 6**		
2. Source Classification Code (SCC): **1-02-004-01**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **0.9**	5. Maximum Annual Rate: **7,884**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **2.5**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **150**
10. Segment Comment: **Maximum hourly and annual rates based on 900 gal/hr and 8,760 hr/yr. Also includes facility-generated on-spec used oil and up to 500 cubic yards per season of petroleum contaminated soils.**		

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 Waste (>50,000 lb/hr Steam)**		
2. Source Classification Code (SCC): **1-02-009-02**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **29.44**	5. Maximum Annual Rate: **2,224**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **9**
10. Segment Comment: **Maximum hourly rate based on 265 MMBtu/hr and a heating value of 4,500 Btu/lb (wet) for wood/bark waste. Maximum annual usage based on 20,015 MMBtu/yr. See Attachment A, Table 1.**		

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:		

BOILER NO. 4

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: **87.92**	5. Maximum Annual Rate: **400,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **7.2**
10. Segment Comment: **Based on 633 MMBtu/hr and 3,600 Btu/lb wet bagasse. Annual rate is maximum allowable from Permit No. 0510003-010-AC/PSD-FL-272A.**		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): **External Combustion Boilers; Industrial; Bagasse; Distillate Oil; Grades 1 and 2**		
2. Source Classification Code (SCC): **1-02-005-01**	3. SCC Units: **Thousand Gallons Burned**	
4. Maximum Hourly Rate: **2.417**	5. Maximum Annual Rate: **500**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.4**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **135**
10. Segment Comment: **Maximum hourly and annual rates based on proposed 326.25 MMBtu/hr and a current limit of 500,000 gallons of fuel oil per year (Permit No. 0510003-018-AC). Includes combustion of facility-generated on-specification used oil.**		

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 Waste (>50,000 lb/hr Steam)**		
2. Source Classification Code (SCC): **1-02-009-02**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **70.33**	5. Maximum Annual Rate: **30,129**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **9**
10. Segment Comment: **Maximum hourly rate based on 633 MMBtu/hr and a heating value of 4,500 Btu/lb (wet) for wood/bark waste. Maximum annual usage based on 271,160 MMBtu/yr. See Attachment A, Table 1.**		

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:		

BOILER NO. 7

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: **112.78**	5. Maximum Annual Rate: **808,548**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **7.2**
10. Segment Comment: **Maximum hourly rate based on a heat input rate of 812 MMBtu/hr (1-hr max) and annual rate based on a heat input rate of 738 MMBtu/hr (24-hr max). Both annual and hourly maximums were based on a heating value of 3,600 Btu/lb wet bagasse (Permit No. 0510003-010-AC/ PSD-FL-272A and Permit No. 0510003-018-AC).**		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): **External Combustion Boilers; Industrial; Bagasse; Distillate Oil; Grades 1 and 2**		
2. Source Classification Code (SCC): **1-02-005-01**	3. SCC Units: **Thousand Gallons Burned**	
4. Maximum Hourly Rate: **2.311**	5. Maximum Annual Rate: **4,500**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **135**
10. Segment Comment: **Maximum hourly and annual rates and the maximum sulfur content of the distillate fuel oil based on current permit limits (Permit No. 0510003-018-AC). Includes combustion of facility-generated on-specification used oil.**		

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 Waste (>50,000 lb/hr Steam)**		
2. Source Classification Code (SCC): **1-02-009-02**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **90.22**	5. Maximum Annual Rate: **18,377**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **9**
10. Segment Comment: **Maximum hourly rate based on 812 MMBtu/hr and a heating value of 4,500 Btu/lb (wet) for wood/bark waste. Maximum annual usage based on 165,393 MMBtu/yr. See Attachment A, Table 1.**		

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:		

BOILER NO. 8

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: **143.06**	5. Maximum Annual Rate: **939,875**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **7.2**
10. Segment Comment: **Maximum hourly rate based on a maximum heat input rate of 1,030 MMBtu/hr (1 hour max.) and the annual rate is based on a 75% capacity factor.**		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): **External Combustion Boilers; Industrial; Bagasse; Distillate Oil; Grades 1 and 2**		
2. Source Classification Code (SCC): **1-02-005-01**	3. SCC Units: **Thousand Gallons Burned**	
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 hourly and annual rates and the maximum sulfur content of the distillate fuel oil based on current permit limits (Permit No. 0510003-021-AC/PSD-FL-333). Includes combustion of facility-generated on-specification used oil.**		

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 Waste (>50,000 lb/hr Steam)**		
2. Source Classification Code (SCC): **1-02-009-02**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **114.44**	5. Maximum Annual Rate: **35,251**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **9**
10. Segment Comment: **Maximum hourly rate based on 1,030 MMBtu/hr and a heating value of 4,500 Btu/lb (wet) for wood/bark waste. Maximum annual usage based on 317,258 MMBtu/yr. See Attachment A, Table 1.**		

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:		

ATTACHMENT A

SUPPLEMENTAL INFORMATION FOR
TITLE V AIR OPERATION PERMIT REVISION

ATTACHMENT A

1.0 DESCRIPTION OF PLANNED ACTIVITIES

The State of Florida has recently been impacted by several hurricanes, resulting in widespread damage in Palm Beach, Hendry, and surrounding counties. As a result, the State of Florida Department of Environmental Protection has issued an Emergency Order (EO) (OGC No. 04-1559, Third Amended Emergency Final Order, September 16, 2004), declaring that the emergency caused by hurricane Frances poses an immediate danger to the public health, safety, and welfare of the citizens of the State of Florida. The purpose of the EO is to facilitate the repair, replacement and restoration of structures, equipment, surface water management systems, works and operations damaged by the hurricanes. The EO covers a number of areas, including solid waste management, open burning, and air pollution sources other than open burning.

United States Sugar Corporation (USSC) is proposing to burn clean wood generated properly from vegetative debris caused by the hurricanes at its sugar mill located in Clewiston. This program will only pertain to the upcoming processing year, beginning November 1, 2004 and running through November 1, 2005.

The major components of the USSC's Clewiston sugar mill include:

- Sugar mill and boiling house;
- Five carbonaceous (bagasse) fueled boilers, with No. 2 fuel oil, No. 6, fuel oil, and on-specification used oil as a supplementary/backup fuel;
- Material storage and handling systems (e.g., bagasse, and planned for wood chips);
- Sugar refinery which operates year-around; and
- Ancillary plant equipment.

Wood chips will be delivered to the USSC facility by 20-ton trucks (typical). The wood chips will be placed in the bagasse storage area. A wood chip fuel management plan, included in Attachment B, will be implemented to ensure that only clean wood fuel is received to be burned in the boilers.

Wood chips will be reclaimed from the storage area through the use of heavy equipment. The wood chips will be placed on the Reclaim Conveyor, which deposits the fuel onto the distribution conveyors for feeding into the boilers. The wood chips may be fed onto the Reclaim Conveyor alone

or may be mixed with the bagasse in storage before being fed to the boilers. Typically, this will result in a mixture of less than 25 percent wood chips. However, during certain conditions such as startup or mill interruption, the mixture could be as high as 100 percent wood chips.

On an annual basis, USSC will limit the total amount of heat input to the boilers from firing wood chips to no more than 1,200,000 million British thermal units per year (MMBtu/yr), or 133,333 tons per year (TPY) of wood chips (@ 4,500 Btu/lb).

A fuel analysis of the different fuels burned in the USSC boilers, including the proposed wood chip fuel, is provided in Attachment C. The analysis shows that wood chip fuel has a higher heating value and lower moisture content than bagasse. The wood chip fuel characteristics should result in cleaner, more efficient combustion, which will actually reduce emissions of most pollutants.

USSC is planning on beginning to burn wood chip fuel as early as November 2004. Wood chip burning may continue through the 2004-2005 crop season and the off-season, until November 2005. Boilers operate year-around at the USSC Clewiston Mill to support the sugar cane processing operations and the sugar refinery.

2.0 AIR EMISSIONS

USSC believes that due to the nature of the clean wood material burned in the boilers, there will be no increase in emissions due to the wood chip burning. Typically, due to the rather small proportion of wood chip fuel burned, the combustion characteristics of the boilers should not change compared to burning 100-percent bagasse. However, as an illustration of the potential effect of wood chip burning, the annual emissions change due to burning 1,200,000 MMBtu/yr (133,333 TPY) of wood chips were developed. The estimated emissions are presented in Table 1.

Current actual emissions for each boiler (in terms of lb/MMBtu) are based on the average of the last two compliance or stack tests performed on each boiler. All of these tests were conducted while burning bagasse. Where compliance or stack test data were not available for a particular boiler, data from other similar boilers at the USSC mill were used.

For potential emissions due to wood chip burning, emission factors from EPA publication AP-42 were used (refer to Attachment D), except for particulate matter (PM). For PM, the AP-42 factor is 0.066 lb/MMBtu, which is lower than all of the past actual stack test factors. However, to be conservative, it was assumed that future emissions in lb/MMBtu would remain the same as past actual emissions. For most pollutants and most boilers, the wood chip emission factors are lower than the actual stack test factors for bagasse burning.

As shown in Table 1, emissions are projected to increase only for nitrogen oxides, and slightly for sulfur dioxide. For all other pollutants, emissions are estimated to remain the same or decrease. It is emphasized that the wood chip burning will be temporary; i.e., it will only last for 1-year duration (November 2004 through October 2005).

3.0 RULE APPLICABILITY

3.1 State of Florida Air Rules

The carbonaceous fuel burning rule, Rule 62-296.410, Florida Administrative Code (F.A.C.), currently applies to the boilers, and will continue to apply to both wood chip and bagasse fuel burning. This rule limits PM emissions to 0.3 lb/MMBtu for existing boilers, and 0.2 lb/MMBtu for new boilers.

3.2 New Source Performance Standards (NSPS)

A potentially applicable NSPS is Subpart Db of 40 CFR 40, Part 60. However, for NSPS to apply, there must be an increase in hourly emissions of a pollutant regulated under the applicable subpart, as a result of the physical change or change in the method of operation. Subpart Db only regulates PM emissions in regards to wood fuel burning. Based on the emission analysis presented in Section 2.0 above, there will be no hourly increase in PM emissions since the heat input rates to the boilers are not changing, and the emission factor for PM wood chips is the same as for bagasse.

3.3 Prevention of Significant Deterioration

The USSC Clewiston boilers are already capable of accommodating the wood chip fuel. There are no physical changes to the boilers required to burn the new fuel. As described above, no increase in emissions is expected due to the burning of wood chip fuel in the boilers. As a result, the project does not constitute a "modification", and prevention of significant deterioration (PSD) new source review does not apply.

3.4 Title V Operating Permit

It is believed that the requested change in operation can be implemented through the "Changes Without Permit Revision" provisions of the Title V regulations (Rule 62-213.410, F.A.C.). This provision provides that a permitted source may implement operating changes after the source submits any forms required and provides the Department and EPA with at least 7 days written notice prior to implementation. The written notice must include the date on which the change will occur, a description of the change within the permitted source, the pollutants emitted and any change in emissions, and any term or condition becoming applicable or no longer applicable as a result of the change. An "Operating Change" is defined in Rule 62-210.200, F.A.C., as "any physical change to, or change to the operation of, any Title V source or any emissions unit within any Title V source which contravenes a permit term or condition, other than one described at Paragraphs 62-213.400(a) through (j), F.A.C., but which does not constitute a modification and does not otherwise subject the source to a requirement for a permit revision pursuant to Rule 62-213.400, F.A.C."

Table 1. Comparison of Actual Emissions from Firing 1,200,000 MMBtu/yr of Bagasse With Potential Emissions from Firing an Equivalent Amount of Clean Wood on a Heat Input Rate Basis - United States Sugar Corporation - Clewiston Mill

Boiler No.	Maximum Annual Bagasse Heat Input Rate Replaced by Wood[a] (MMBtu/yr)	Past Actuals - Bagasse Emission Factor[b] (lb/MMBtu)	Past Actuals - Bagasse Annual Emission Rate (TPY)	Future Potentials - Wood Emission Factor[d] (lb/MMBtu)	Future Potentials - Wood Annual Emission Rate (TPY)	Difference in Annual Emission Rate From Firing Bagasse and Wood (TPY)	PSD Significant Emission Rate (TPY)
		Nitrogen Oxides					
1	224,159	0.106	11.9	0.22	24.7	12.8	
2	202,015	0.117	11.8	0.22	22.2	10.4	
3	20,015	0.188	1.9	0.22	2.2	0.3	
4	271,160	0.114	15.5	0.22	29.8	14.4	
7	165,393	0.203	16.8	0.22	18.2	1.4	
8	317,258	0.14[f]	22.2	0.14[f]	22.2	0.0	
	Total		80.0		119.3	39.3	40
		Sulfur Dioxide					
1	224,159	0.011	1.2	0.025	2.8	1.6	
2	202,015	0.011[c]	1.1	0.025	2.5	1.4	
3	20,015	0.011[c]	0.1	0.025	0.3	0.1	
4	271,160	0.011[c]	1.5	0.025	3.4	1.9	
7	165,393	0.014	1.2	0.025	2.1	0.9	
8	317,258	0.06[f]	9.5	0.025	4.0	-5.6	
	Total		14.6	Total	15.0	0.4	40
		Particulate Matter					
1	224,159	0.178	20.0	0.178[e]	20.0	0.0	
2	202,015	0.190	19.2	0.190[e]	19.2	0.0	
3	20,015	0.162	1.6	0.162[e]	1.6	0.0	
4	271,160	0.113	15.3	0.113[e]	15.3	0.0	
7	165,393	0.017	1.4	0.017[e]	1.4	0.0	
8	317,258	0.026[f]	4.1	0.026[e]	4.1	0.0	
	Total		61.6		61.6	0.0	25
		Carbon Monoxide					
1	224,159	5.671	635.6	0.6	67.2	-568.4	
2	202,015	9.080	917.1	0.6	60.6	-856.5	
3	20,015	8.279	82.9	0.6	6.0	-76.8	
4	271,160	1.625	220.3	0.6	81.3	-139.0	
7	165,393	0.412	34.1	0.6	49.6	15.5	
8	317,258	0.412[f]	65.4	0.6	95.2	29.8	
	Total		1,955.3		360.0	-1,595.3	100
		Volatile Organic Compounds					
1	224,159	0.250[g]	28.0	0.013	1.5	-26.6	
2	202,015	0.250[g]	25.3	0.013	1.3	-23.9	
3	20,015	0.250[g]	2.5	0.013	0.1	-2.4	
4	271,160	0.250[g]	33.9	0.013	1.8	-32.1	
7	165,393	0.022	1.8	0.013	1.1	-0.7	
8	317,258	0.050[f]	7.9	0.013	2.1	-5.9	
	Total		99.4		7.8	-91.6	40

See Next Page for Footnotes.

Footnotes for Table 1.

[a] Based on distrubution of 1,200,000 MMBtu/yr to each boiler based on the maximum 24-hour average heat input rate and the number of available hours for each boiler over the next year starting on November 1, 2004 and the total combined annual available heat input rate to all boilers calculated as follows:

Boiler No.	Maximum 24-hr Avg. Heat Input Rate (MMBtu/hr)	Available Operating Hours (hours)	Annual Heat Input Rate (MMBtu/yr)	Pro-Rated Heat Input From Wood Chips (MMBtu/yr)	Comment
1	496	8,760	4,344,960	224,159	
2	447	8,760	3,915,720	202,015	
3	265	1,464	387,960	20,015	To be shut down January 2005.
4	600	8,760	5,256,000	271,160	
7	738	4,344	3,205,872	165,393	See Note 1.
8	936	6,570	6,149,520	317,258	To begin Operation January 2005. See Note 2.
		Total	23,260,032	1,200,000	

Note: 1. Permit limits operation outside of crop season to Boiler Nos. 7 and 8 or to Boiler Nos. 1, 2, 4, and 8. Maximum heat input is for the case of Boiler Nos. 1, 2, and 4 operating in off-season. Therefore, operating hours for Boiler No. 7 are based on the crop season operation only.

2. Boiler No. 8 annual heat input rate based on a permitted 75% capacity factor.

[b] Unless otherwise specified, represents average emission factor from two most recent stack tests.

[c] Stack tests for SO_2 have only been performed for Boiler Nos. 1 and 7. The lowest result of 0.011 lb/MMBtu was used for these boilers.

[d] Unless otherwise noted: based on AP-42, Compilation of Air Pollutant Emission Factors, Chapter 1.6, September 2003.

[e] Based on no increase expected above current actual PM emissions.

[f] Permitted emission rate.

ATTACHMENT B

WOOD FUEL MANAGEMENT PLAN

ATTACHMENT B

Wood Fuel Management Plan

United States Sugar Corporation
Clewiston Mill

October 2004

United States Sugar Corporation
111 Ponce DeLeon Avenue
Clewiston, Florida 33440

Submitted to
Florida Department of Environmental Protection
South District Office

TABLE OF CONTENTS

1.0 INTRODUCTION

United States Sugar Corporation (USSC) will implement inspection procedures for the wood chips delivered for fuel to its sugar mill located in Clewiston. The primary function of these procedures is to keep painted and chemically-treated wood, household garbage, toxic or hazardous non-biomass, and non-combustible waste material from being burned at the Mill. This Wood Chips Management Plan describes the implementation of these procedures.

The Plan includes a brief description of the USSC facility and its operations related to wood chips handling in Sections 2.0 and 3.0. Procedures for inspection of the wood chips at both the wood chips supply site and at USSC are described in Section 4.0. USSC procedures for recordkeeping of inspection results are provided in Section 5.0.

2.0 FACILITY INFORMATION

USSC is a bagasse-fired sugar cane processing facility located in Clewiston, Florida.

The major components of the facility include:

- sugar mill and boiling house
- five carbonaceous (bagasse) fueled boilers
- material storage and handling systems (e.g., wood chips, bagasse)
- sugar refinery
- ancillary plant equipment.

3.0 PROCESS DESCRIPTIONS

The following section describes the USSC Clewiston wood chips handling system process flow. Although the USSC facility also includes a bagasse handling system, only the wood chips are subject to the inspection procedure. Therefore, only this system is described in this plan.

3.1 Wood Chip Handling System

Wood chips will be delivered to the USSC facility by 20-ton trucks (typical). While unloading from the trucks, the wood chips will be discharged onto the ground. Heavy equipment will be used to transfer the wood chips to the designated storage area which is located at the bagasse storage area.

Wood chips will be reclaimed from the storage area through the use of heavy equipment. During normal operation, the wood chips will be placed on the Reclaim Conveyor. From the Reclaim Conveyor, the wood chips will discharge directly onto the boiler distribution conveyor, where it is fed to the boilers. During operations when the mill is down, all fuel for the boilers comes from the bagasse storage area via the Reclaim Conveyor. Wood chips may be mixed with bagasse in the storage area or fed alone onto the Reclaim Conveyor.

4.0 INSPECTION PROCEDURES

4.1 Wood Chips Supply Site

USSC will stipulate in its fuel supply contracts with the suppliers that the delivered wood chips must be substantially free of plastics, rubber, glass, and painted wood and contain only incidental amounts of chemically treated wood (e.g., chromium, copper, arsenic, creosote, pentachlorophenol).

To help ensure that wood chips delivered to the USSC facility meet the fuel quality specifications, the wood chip supplier will perform inspection and material segregation operations on each load of feedstock received at their facilities. The following description of the inspection and material segregation operations are typical of those operations performed at the wood chip yards supplying the USSC facility.

The bulk material feedstock at the originating wood chip yard will first undergo a "gross" material inspection to insure the segregation of the bulk wood chips from other mixed wastes (e.g., plastics, non-wood debris, scrap metal, concrete/soils). Trained personnel will be involved in oversight at this level of material inspection such that the majority of prohibited wastes are segregated from the bulk wood chips. After this operation, the wood chips will be further visually inspected and manually sorted (when applicable) to remove chemically-treated and painted wood, smaller mixed wastes, and other non-combustible materials. The "sorted" wood chips are then mechanically sized and screened (to actual contract specifications) prior to delivery to the USSC facility site.

4.2 USSC Wood Chip Storage

Upon delivery of the wood chips to the USSC Clewiston facility, each load will be visually inspected by the Fuel Handler stationed at the truck receiving dumping area. Loads which contain unacceptable, visible amounts (i.e., greater than fuel contract specified limits) of chemically treated and/or painted wood and other prohibited mixed wastes will be rejected by the inspector and prevented from discharging at the USSC facility fuel storage area. If the delivered load is acceptable based on the visual inspection, the truck will be staged for unloading.

5.0 RECORDKEEPING

Records of the wood chip deliveries and inspections outlined in this Plan will be maintained at the USSC Clewiston facility for review on an as-requested basis by FDEP. The records will typically include:

- Supplier,
- Time/date of delivery,
- Type of material,
- Delivery size, and
- Written record of visual inspection results (land accepted/rejected).

ATTACHMENT C

BOILER FUEL ANALYSIS

ATTACHMENT C
BOILER FUEL ANALYSIS

UNITED STATES SUGAR CORPORATION

PARAMETER	BAGASSE[a]	NOS. 1 & 2 FUEL OIL	NO. 6 FUEL OIL[b]	WOOD[c]
Heating Value				
Btu/lb (dry)	8,170	19,910	17,500	7,143
Btu/lb (wet) (min)	3,600	6.8	--	4,500
Density (lb/gal)	--	--	8.1	--
Moisture (%)	54		0.2	37
AVERAGE ULTIMATE ANALYSIS: (Dry Basis %)				
Carbon	48	86.9	87.3	50
Hydrogen	6	13.1	10.5	6
Nitrogen	0.35	0.005	0.28	0.40
Oxygen	42	0.03	0.64	41
Sulfur	0.06	0.16	1.0	0.07
Ash	4.5	<0.01	0.1	9.0

[a] Sources: U.S. Sugar Corporation, 2002. It represents average values, since biomass in particular could vary depending on environmental conditions, as well as harvesting procedures.

[b] Source: Perry's Chemical Engineers' Handbook, Sixth Edition.

[c] Based on New Hope Power Partnership average fuel specifications.

ATTACHMENT D

EMISSIONS FACTORS FOR WOOD CHIP BURNING FROM AP-42

Table 1.6-1. EMISSION FACTORS FOR PM FROM WOOD RESIDUE COMBUSTION[a]

Fuel	PM Control Device	Filterable PM		Filterable PM-10[b]		Filterable PM-2.5[b]	
		Emission Factor (lb/MMbtu)	EMISSION FACTOR RATING	Emission Factor (lb/MMbtu)	EMISSION FACTOR RATING	Emission Factor (lb/MMbtu)	EMISSION FACTOR RATING
Bark/Bark and Wet Wood	No Control[c]	0.56[d]	C	0.50[e]	D	0.43[e]	D
Dry Wood	No Control[c]	0.40[f]	A	0.36[e]	D	0.31[e]	D
Wet Wood	No Control[c]	0.33[g]	A	0.29[e]	D	0.25[e]	D
Bark	Mechanical Collector	0.54[h]	D	0.49[e]	D	0.29[e]	D
Bark and Wet Wood	Mechanical Collector	0.35[i]	C	0.32[e]	D	0.19[e]	D
Dry Wood	Mechanical Collector	0.30[j]	A	0.27[e]	D	0.16[e]	D
Wet Wood	Mechanical Collector	0.22[k]	A	0.20[e]	D	0.12[e]	D
All Fuels[m]	Electrolyzed Gravel Bed	0.1[m]	D	0.074[e]	D	0.065[e]	D
All Fuels[m]	Wet Scrubber	0.066[n]	A	0.065[e]	D	0.065[e]	D
All Fuels[m]	Fabric Filter	0.1[o]	C	0.074[e]	D	0.065[e]	
All Fuels[m]	Electrostatic Precipitator	0.054[p]	B	0.04[e]	D	0.035[e]	
		Condensible PM					
All Fuels[m]	All Controls/No Controls	0.017[q]	A				

Table 1.6-1. (cont.)

[a] Units of lb of pollutant/million Btu (MMBtu) of heat input. To convert from lb/MMBtu to lb/ton, multiply by (HHV * 2000), where HHV is the higher heating value of the fuel, MMBtu/lb. CPM = Condensible Particulate Matter. These factors apply to Source Classification Codes (SCC) 1-0X-009-YY, where X = 1 for utilities, 2 for industrial, and 3 for commercial/institutional, and where Y = 01 for bark-fired boiler, 02 for bark and wet wood-fired boiler, 03 for wet wood-fired boiler, and 08 for dry wood-fired boiler.

[b] PM-10 = particulate matter less than or equal to 10 microns in aerodynamic diameter. PM-2.5 = particulate matter less than or equal to 2.5 microns in aerodynamic diameter. Filterable PM = PM captured and measured on the filter in an EPA Method 5 (or equivalent) sampling train. Condensible PM = PM captured and measured in an EPA Method 202 (or equivalent) sampling train.

[c] Factor represents boilers with no controls, Breslove separators, Breslove separators with reinjection, and mechanical collectors with reinjection. Mechanical collectors include cyclones and multiclones.

[d] References 19-21, 88.

[e] Cumulative mass % provided in Table 1.6-6 for Bark and Wet Wood-fired boilers multiplied by the Filterable PM factor.

[f] References 22-32, 88.

[g] References 26, 33-36, 88.

[h] References 37, 38, 88.

[i] References 26, 39-41, 88.

[j] References 26, 27, 34, 42-54, 88.

[k] Reference 55-57, 88.

[l] All fuels = Bark, Bark and Wet Wood, Dry Wood, and Wet Wood.

[m] References 27, 58, 88.

[n] References 26, 59-66, 88.

[o] References 26, 67-70, 88.

[p] References 26, 71-74, 88.

[q] References 19-21, 25, 28, 29, 31, 32, 36-41, 46, 51, 53-60, 62 - 65, 67-69, 72-75, 88.

Table 1.6-2. EMISSION FACTORS FOR NO_x, SO_2, AND CO FROM WOOD RESIDUE COMBUSTION[a]

Source Category[c]	NO_x[b]		SO_2[b]		CO[b]	
	Emission Factor (lb/MMbtu)	EMISSION FACTOR RATING	Emission Factor (lb/MMBtu)	EMISSION FACTOR RATING	Emission Factor (lb/MMbtu)	EMISSION FACTOR RATING
Bark/bark and wet wood/wet wood-fired boiler	0.22[d]	A	0.025[e]	A	0.60[f,g,i,j]	A
Dry wood-fired boilers	0.49[h]	C	0.025[e]	A	0.60[f,g,i,j]	A

[a] Units of lb of pollutant/million Btu (MMBtu) of heat input. To convert from lb/MMBtu to lb/ton, multiply by (HHV * 2000), where HHV is the higher heating value of the fuel, MMBtu/lb. To convert lb/MMBtu to kg/J, multiply by 4.3E-10. NO_x = Nitrogen oxides, SO_2 = Sulfur dioxide, CO = Carbon monoxide.

[b] Factors represent boilers with no controls or with particulate matter controls.

[c] These factors apply to Source Classification Codes (SCC) 1-0X-009-YY, where X = 1 for utilities, 2 for industrial, and 3 for commercial/institutional, and where Y = 01 for bark-fired boiler, 02 for bark and wet wood-fired boiler, 03 for wet wood-fired boiler, and 08 for dry wood-fired boiler.

[d] References 19, 33, 34, 39, 40, 41, 55, 62-64, 67, 70, 72, 78, 79, 88-89.

[e] References 26, 45, 50, 72, 88-89.

[f] References 26, 59, 88-89.

[g] References 19, 26, 39-41, 60-64, 67, 68, 70, 75, 79, 88-89.

[h] References 30, 34, 45, 50, 80, 81, 88-89.

[i] References 26, 30, 45-51, 80-82, 88-89.

[j] Emission factor is for stokers and dutch ovens/fuel cells. References 26, 34, 36, 55, 60, 65, 71, 72, 75. **CO Factor for fluidized bed combustors is 0.17 lb/MMbtu.** References 26, 72, 88-89.

Table 1.6-3. (cont.)

Organic Compound	Average Emission Factor[b] (lb/MMBtu)	EMISSION FACTOR RATING
Vinyl Chloride	1.8 E-05[r]	D
o-Xylene	2.5 E-05[r]	D
Total organic compounds (TOC)	0.039[ai]	D
Volatile organic compounds (VOC)	0.013[aj]	D
Nitrous Oxide (N_2O)	0.013[ak]	D
Carbon Dioxide (CO_2)	195[al]	A

[a] Units of lb of pollutant/million Btu (MMBtu) of heat input. To convert from lb/MMBtu to lb/ton, multiply by (HHV * 2000), where HHV is the higher heating value of the fuel, MMBtu/lb. To convert lb/MMBtu to kg/J, multiply by 4.3E-10. These factors apply to Source Classification Codes (SCC) 1-0X-009-YY, where X = 1 for utilities, 2 for industrial, and 3 for commercial/institutional, and where Y = 01 for bark-fired boiler, 02 for bark and wet wood-fired boiler, 03 for wet wood-fired boiler, and 08 for dry wood-fired boiler.

[b] Factors are for boilers with no controls or with particulate matter controls.

[c] References 26, 34, 36, 59, 60, 65, 71-73, 75.

[d] References 26, 33, 34, 36, 59, 60, 65, 71-73, 75.

[e] References, 26, 35, 36, 46, 50, 59, 60, 65, 71-75.

[f] Reference 26.

[g] Reference 33.

[h] Reference 26, 50, 83.

[i] References 26, 34, 36, 59, 60, 65, 71-73, 75.

[j] References 26, 50.

[k] References 26, 35, 36, 46, 59, 60, 65, 70, 71-75.

[l] References 26, 36, 59, 60, 65, 70-75.

[m] References 26, 33, 36, 59, 60, 65, 70-73, 75.

[n] References 26, 33, 36, 59, 60, 65, 71-73, 75.

[o] Reference 34.

[p] References 26, 36, 60, 65, 71-75.

[q] References 26, 33.

[r] References 26.

[s] Reference 83.

[t] References 26, 72.

[u] References 35, 60, 65, 71, 72.

[v] References 26, 72.

[w] References 35, 60, 65, 71, 72.

[x] References 26, 33, 34, 59, 60, 65, 71-75.

[y] References 26, 28, 35, 36, 46 - 51, 59, 60, 65, 70, 71-75, 79, 81, 82.

[z] Reference 50.

[aa] Reference 26, 45.

[ab] References 26, 33, 34, 36, 59, 60, 65, 71-75, 83.

[ac] References 26, 35, 60, 65, 71, 72.

[ad] References 26, 33, 34, 36, 59, 60, 65, 71 - 73.

[ae] References 26, 33, 34, 35, 60, 65, 70, 71, 72.

[af] References 26, 33, 34, 36, 59, 60, 65, 71 - 73, 83.

[ag] References 26, 45.

[ah] References 26, 35, 60, 65, 71.

[ai] TOC = total organic compounds. Factor is the sum of all factors in table except nitrous oxide and carbon dioxide.

[aj] VOC volatile organic compounds. Factor is the sum of all factors in table except hydrogen chloride, chlorine, formaldehyde, tetrachloroethene, 1,1,1,-trichloroethane, dichloromethane, acetone, nitrous oxide, methane, and carbon dioxide.

[ak] Reference 83.

[al] References 19 - 26, 33 - 49, 51- 57, 77, 79 - 82, 84 - 86.