Golder Associates Inc.

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

February 18, 2003

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

FEB 24 2003

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DUREAU OF AIR REGULATION

Attention: Mr. Jeffery Koerner, P. E.

RE: United States Sugar Corporation (U.S. Sugar) – Clewiston Mill Boiler No. 4 and Boiler No. 7 Fuel Oil Burning Increase

DEP Project No. 0510003-018-AC

Dear Mr. Koerner:

U. S. Sugar is in receipt of the Department's request for additional information (RAI) dated January 15, 2003, for the above referenced project. The following are responses to each of the Department's requests, each provided in the same order as they appear in the letter.

1.a. Boiler No. 4

The physical changes to Boiler No. 4 to implement the fuel oil burning change consist of the following:

- 1. Two (2) new multi-stage combustion low-NO_X burners, complete with flame scanner, fuel/steam valve train, steam-atomized center-fired oil gun and ignitor and flame proving rod.
- 2. Multi-burner windbox.
- 3. Fuel oil pump set.
- 4. Burner management system.

These components will replace the existing oil-firing system, which is more rudimentary (i.e., no burner management system).

The furnace volume for Boiler No. 4 is 21,245 cubic feet (ft³), while the maximum heat input due to fuel oil will be 326.25 million British thermal units per hour (MMBtu/hr). Therefore, the heat release rate for fuel oil firing will be 15,357 Btu/hr-ft³.

The fixed capital cost of installing the above components is approximately \$400,000. As presented in Golder's recent letter to the Department regarding planned maintenance and repairs to the Clewiston boilers, the estimated cost of a comparable new boiler is \$8 million. Reconstruction, as defined in 40 CFR 60.15, is triggered if the cost of the new components exceeds 50 percent of the fixed capital cost of a comparable new boiler. The planned project cost represents 5 percent of the cost of a new boiler. Therefore, reconstruction is not triggered under the New Source Performance Standards (NSPS).

1.b. Boiler No. 7

The physical changes to Boiler No. 7 to implement the fuel oil burning change consist of the following:

- 1. Modify the existing fuel oil burners to configure as multi-stage combustion low- NO_X burners, and modify the fuel/steam valve train to incorporate a constant differential pressure valve.
- 2. Replace the existing two fuel oil pumps.

These components will replace the existing components. No components will be added.

The furnace volume for Boiler No. 7 is 43,470 ft³, while the maximum heat input due to fuel oil will be 326.25 MMBtu/hr. Therefore, the heat release rate for fuel oil firing will be 7,505 Btu/hr-ft³.

The fixed capital cost of installing the above components is approximately \$78,000. As presented in Golder's recent letter to the Department regarding planned maintenance and repairs to the Clewiston boilers, the estimated cost of a comparable new boiler is \$8.5 million. Reconstruction, as defined in 40 CFR 60.15, is triggered if the cost of the new components exceeds 50 percent of the fixed capital cost of a comparable new boiler. The planned project cost represents less than 1 percent of the cost of a new boiler. Therefore, reconstruction is not triggered under the NSPS.

- 2. Attached are the two spreadsheets used to calculate current actual emissions due to fuel oil firing from Boiler No. 4. These spreadsheets, taken from the Annual Operating Reports for Clewiston (submitted to the Department), show the emission factors used for fuel oil firing. The factors were based on No. 6 fuel oil firing, since Boiler No. 4 has burned No. 6 fuel oil during the last 2 years. Attached also is a current fuel oil analysis for the oil burned in Boiler No. 4.
- 3. Attachment UC-EU1-G8 in the December 18, 2002, response letter contains the revised maximum hourly and annual emissions due to fuel oil firing for Boiler No. 7. However, we know of no requirement that would impose allowable limits upon the boiler for fuel oil firing. We believe the imposition in the permit of a fuel oil sulfur limit and maximum fuel oil firing rate are sufficient, and that specific emission limits are unnecessary.

4.a. Boiler No. 4

Boiler No. 4 does not currently burn No. 2 distillate oil. As stated in the application for Boiler No. 4, the boiler currently burns No. 6 fuel oil with a maximum sulfur content of 0.7 percent. As further demonstrated, after converting to No. 2 fuel oil with a maximum sulfur content of 0.4 percent, the maximum hourly emissions of PM, SO₂, and NO_x will decrease (refer to Table 3 of the application). Therefore, "modification" is not triggered under the NSPS (refer to 40 CFR 60.14), and the unit will not become subject to Subpart Db requirements due to the proposed project.

4.b. Boiler No. 7

We believe the citation at the end of paragraph (2) should refer to 40 CFR 60.44b(j) and (k). These two paragraphs read together provide an exemption from the NO_X standards for a unit that has a heat input capacity of 250 MMBtu/hr or less. Since the modified boiler will have a heat input greater than 250 MMBtu/hr for fuel oil, this exemption will no longer be available.

However, we believe that 60.44b(c) would continue to exempt the boiler from the NO_X standards. This provision states:

"...no owner or operator of an affected facility that simultaneously combusts coal or oil....with...any other fuel shall cause to be discharged into the atmosphere any gases that contain nitrogen oxides in excess of the emission limit for the coal or oil....as determined from paragraph (a) or (b), unless the affected facility has an annual capacity factor for coal or oil, or a mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, or a mixture of these fuels with natural gas."

In summary, we believe the NSPS provide an exemption from the NO_X standards for any boiler, regardless of heat input capacity for oil, with an annual capacity factor of less than 10 percent for oil. Since Boiler No. 7 will be restricted to a 10 percent capacity factor on oil, the boiler is exempt from the NO_X standards per this provision.

- 4.c. We concur with comment.
- 4.d. As previously discussed, we do not believe Boiler No. 4 will be subject to Subpart Db due to the proposed project. Even if it were, no NO_X standard would be applicable since it has a 10-percent annual capacity limitation for oil. Boiler No. 7 is similarly exempt from the NO_X standards. Therefore, if there is no applicable NO_X standard, no NO_X testing is required under the NSPS.

Further, we do not believe that Subpart Db requires stack testing for PM for distillate oil firing. Section 60.43b(b) addresses the applicable PM emission limitation for oil firing, but only covers affected facilities using a "conventional or emerging technology to reduce sulfur dioxide emissions". Since Boiler No. 7 does not use either a conventional or emerging technology to control sulfur dioxide emissions, as defined in 60.41b, no PM emission limit applies to either boiler.

We agree that an initial visible emissions test is required, and that the required total testing time is 3 hours (30 6-minute averages), per 60.11 (b). We agree that compliance with the SO_2 standards will be on the basis of fuel receipts.

4.e. As previously discussed, we do not believe that an NO_X standard is applicable to either boiler under the NSPS, and therefore, continuous monitoring for NO_X is not required. If Boiler No. 4 would become subject to Subpart Db, we would request an alternative sampling plan for opacity.

Please call or e-mail me if you have any questions concerning this additional information.

Sincerely,

GOLDER ASSOCIATES INC.

David a Buff

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

Principal Engineer Florida P. E. # 19011

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DB/jej

Enclosure

cc: Don Griffin

Sarah Watson

Ron Blackburn, DEP

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Attachment B-4. 2000 Emissions of Criteria Pollutants at U.S. Sugar Corporation Clewiston Boiler 4

	Emission Factors								
Regulated	Carbonaceous Fuel				No. 6 Fuel Oil				Total
Pollutant	Emission Factor (lb/ton)	Reference	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Reference	Annual Fuel Usage (Gallons/yr)	Annual Emissions (TPY)	Annual Emissions (TPY)
Criteria and Precursor Air Pollutants									
Particulate Matter (PM)	1.080	1	237,895	128.46	10.48	3 (b)	185,631	0.97	129.44
Particulate Matter (PM ₁₀)	0.918	(a)	237,895	109.19	8.91	(a)	185,631	0.83	110.02
Sulfur Dioxide (SO ₂)	0.001	1	237,895	0.12	62.02	3 (b)	185,631	5.76	5.88
Nitrogen Oxides (NO _x)	0.763	1	237,895	90.76	47	3	185,631	4.36	95.12
Carbon Monoxide (CO)	26.309	1	237,895	3,129.39	5	3	185,631	0.46	3,129.85
VOC	2.232	1	237,895	265.49	0.28	4	185,631	0.03	265.52
Lead - Total	4.45E-04	2	237,895	0.05	1.51E-03	5	185,631	1.40E-04	0.05

Footnotes:

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 146,210 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, collecteed by Air Consulting and Engineering:	PM	0.150 lb/MMBtu	11/17/2000
	SO_2	0.00013 lb/MMBtu	1/5/2000
	VOC	0.310 lb/MMBtu	11/17/2000
	NO_x	0.106 lb/MMBtu	11/17/2000
	CO	3.654 lb/MMBtu	11/17/2000

^{2.} Based on EPA's AP-42 Table 1.6-5, "Emission Factors for Trace Elements from Wood Waste Combustion with PM Controls" (2/99).

⁽a) Assuming 85% of PM is PM₁₀.

⁽b) Average sulfur content of the fuel mix is 0.79% (mixture of 2.5% sulfur fuel oil and 0.7% sulfur fuel oil).

^{3.} Based on AP-42 Table 1.3-1, "Criteria Pollutant Emission Factors for Fuel Oil Combustion" (9/98), normal firing. Assume 50% SO₂ removal from scrubber.

^{4.} Based on AP-42 Table 1.3-3, "Emission Factors for Total Organic Compounds (TOC), Methane, and Nonmethane TOC (NMTOC) from Uncontrolled Fuel Oil Combustion (9/98).

^{5.} Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).

Attachment B-4. 2001 Emissions of Criteria Pollutants at U.S. Sugar Corporation Clewiston Boiler No. 4

	Emission Factors								
Regulated	Carbonaceous Fuel				No. 6 Fuel Oil				Total
Pollutant	Emission Factor (lb/ton)	Reference	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Reference	Annual Fuel Usage (Gallons/yr)		Annual Emissions (TPY)
Criteria and Precursor Air Pollutants								·	
Particulate Matter (PM)	0.504	1	262,404	66.13	9.65	3 (b)	172,413	0.83	66.96
Particulate Matter (PM ₁₀)	0.428	(a)	262,404	56.21	8.21	(a)	172,413		56.91
Sulfur Dioxide (SO ₂)	0.00094	1	262,404	0.12	54.95		172,413	4.74	4.86
Nitrogen Oxides (NO _x)	0.857	1	262,404	112.44	47	3	172,413		116.49
Carbon Monoxide (CO)	8.366	1	262,404	1,097.64	5	3	172,413	0.43	1,098.07
VOC	0.209	1	262,404	27.42	0.28	4	172,413	0.02	27.45
Lead - Total	4.45E-04	2	262,404	0.06	1.51E-03	5	172,413	1.30E-04	0.06

Footnotes:

- (a) Assuming 85% of PM is PM₁₀.
- (b) Sulfur content of the fuel is 0.7%.

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 146,000 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, collecteed by Air Consulting and Engineering:	PM	0.070 lb/MMBtu	1/23/2002
	SO_2	0.00013 lb/MMBtu	1/5/2000
	VOC	0.029 lb/MMBtu	1/23/2002
	NO_x	0.119 lb/MMBtu	1/23/2002
	CO	1.162 lb/MMBm	1/23/2002

- 2. Based on EPA's AP-42 Table 1.6-5, "Emission Factors for Trace Elements from Wood Waste Combustion with PM Controls" (2/99).
- 3. Based on AP-42 Table 1.3-1, "Criteria Pollutant Emission Factors for Fuel Oil Combustion" (9/98), No. 6 fuel oil, normal firing. Assume 50% SO₂ removal from scrubber.
- 4. Based on AP-42 Table 1.3-3, "Emission Factors for Total Organic Compounds (TOC), Methane, and Nonmethane TOC (NMTOC) from Uncontrolled Fuel Oil Combustion (9/98).
- 5. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).

COASTAL FUELS MARKETING, INC PORT MANATEE, FL

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			 -
12/2° 15:19 LAB			Calculated BLEND
DATE TESTED TANK PRODUCT VOLUME BLEND %	Test	٠	607B # 6 Fuel Cil 100.0 100.0
SPECIFIC GRAVITY	Method	UNITS 60/60 F	0.9674
API GRAVITY	D-1298	60 F	14.78
FLASH POINT	D-93	DEG F	183
VISCOSITY (@122 F)	D-445	SFS	12.6
(@1221)	D-445	cSt	24.0
POUR POINT	D-97	DEG F	0 0 0, SO2
SULFUR	D-4294	% WT.	0.690
WATER BY DISTILLATION	D-95	% VOL.	0.35
SEDIMENT BY HOT FILTRA	TION IP 390B	% WT.	0.007 Q by
GROSS HEAT OF COMBUS	TION D-240	BTU/GAL.	0.007 B. b. #4 150764 Weed Colors
ASH (sample, g)	D482	% WT.	0.051
ASPHALTINES	IP-143	% WT.	3.04
CARBON RESIDUE	D-4530	% WT.	6.87
VANADIUM	D-5863A	ppm	9.0
SODIUM	D-5863B	ppm	37.3
ALUMINUM	D-5184	ppm	23.5
SILICON	D-5184	ppm	29.7

Golder Associates Inc.

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

December 18, 2002

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

Attention: Jeffery F. Koerner, P.E.

PROJECT NO. 0510003-018-AC (PSD-FL-208A) CLEWISTON SUGAR MILL AND REFINERY

INCREASE IN OIL FIRING RATE FOR BOILER NO. 7

Dear Mr. Koerner:

RE:

United States Sugar Corporation (USSC) has received the Department's request for additional information (RAI) dated October 22, 2002, regarding the above referenced air construction permit application. Each of the Department's comments is addressed below, in the same order as they appear in the RAI letter.

1. There are currently two oil burners (guns) in Boiler No. 7 to provide fuel oil firing. The number of oil burners (guns) will not change as a result of the project.

The maximum oil firing rate has been slightly revised based on discussions with a perspective vendor. In terms of gallons per hour (gal/hr), the maximum fuel oil firing rate will be 2,417 gal/hr based on 326.25 million British thermal units per hour (MMBtu/hr) heat input due to fuel oil and a fuel oil heating value of 135,000 Btu/gal. These values are based on the following calculations:

225,000 lb/hr steam x 1,160 Btu/lb / 0.80 / 1E+06 = 326.25 MMBtu/hr

326.25 MMBtu/hr 135,000 Btu/gal = 2,416.7 gal/hr

This calculation assumes 80-percent thermal efficiency when burning fuel oil only.

Revised pages of the application form are attached. Note that this change only slightly affects maximum hourly emissions due to fuel oil firing. Maximum annual emissions due to fuel oil firing are not affected.

- 2. The lb/MMBtu limits for fuel oil firing would not change due to the project. As stated above, the revised heat input rate due to oil firing is 326.25 MMBtu/hr. All other information is correct. The purpose of the 4,500,000 gal/yr fuel oil limit is to avoid applicable requirements of 40 CFR 60, Subpart Db. Specifically, if the boiler is limited to an annual capacity factor of 10 percent or less for fuel oil firing, the boiler is exempt from the NO_x standards per 40 CFR 60.44b(c) and 60.44b(l)(1).
- 3. To our knowledge, the proposed project does not trigger any additional requirements under Rule 62-296.405 or 40 CFR 60.49b, nor does it trigger any new regulations.



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Rule 62-296.405 is applicable to fossil-fuel steam generators with more than 250 MMBtu/hr heat input. Boiler No. 7 is a carbonaceous fuel burner and is subject to Rule 62-296.410. The carbonaceous fuel burner rule recognizes that fossil fuel is burned in carbonaceous fuel burning units. Nevertheless, no additional requirements or standards would apply under Rule 62-296.405. A continuous opacity monitor would not be required since the annual capacity factor for fuel oil for the boiler is less than 30 percent (reference Rule 62-296.405(1)(f)1).

Reporting and recordkeeping requirements are contained in 40 CFR 60.49b. Boiler No. 7 is already subject to these requirements as they pertain to fuel oil firing, and we are not aware of any new requirements that are triggered by the proposed change.

The proposed project is not subject to 40 CFR 60 Subpart D requirements. According to 40 CFR 60.40b(j), any affected facility meeting the applicability requirements of Subpart Db, under 40 CFR 60.40b(a), and commencing construction after June 19, 1986, is not subject to Subpart D. Construction was commenced on Boiler No. 7 well after June 19, 1986.

4. The dispersion modeling analysis performed for the Boiler No. 4 PSD permit application included Boiler No. 7 while burning 100-percent bagasse, since maximum SO₂ emissions were produced by bagasse firing. The modeled SO₂ emission rate for bagasse firing was 0.17 lb/MMBtu and 138.0 lb/hr (also see page 19 of application form for SO₂ pollutant detail). For the proposed fuel oil firing rate, the SO₂ emissions are 0.05 lb/MMBtu and 16.3 lb/hr. Therefore, SO₂ emissions due to bagasse firing are over eight times higher than emissions due to fuel oil firing, and there is no need for additional modeling analysis.

Please call if you have any questions concerning this additional information.

Sincerely,

GOLDER ASSOCIATES INC.

David a. Buff

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

Principal Engineer Florida P. E. #19011

DB/jkw

Cc:

Don Griffin Peter Briggs

Q. Gettle, EPA

Boiler	No.	7
DVIIVI	110.	•

Emissions	Unit	Information	Section	1	of	1	
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B. EMISSIONS UNIT CAPACITY INFORMATION (Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1.	Maximum Heat Input Rate:		812	mmBtu/hr			
2.	Maximum Incineration Rate:	lb/hr		tons/day			
3.	Maximum Process or Through	out Rate:					
4.	Maximum Production Rate:		385,000 lb	/hr steam			
5.	Requested Maximum Operatin	g Schedule:		" "			
	24	hours/day	7	days/week			
	52	weeks/year	8,760	hours/year			
6.	Operating Capacity/Schedule (Comment (limit to 200)	characters):				
	Maximum heat input based on 1-hour maximum steam rate (above) for carbonaceous fuel firing. Maximum 24-hour average firing for carbonaceous fuel is 738 MMBtu/hr. Proposed maximum for No. 2 fuel oil is 326.25 MMBtu/hr.						

Boiler I	No. 7
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Emissions	Unit l	Information	Section	1	οf	1
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E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

<u>Se</u>	gment Description and Ra	ate:	Segment1	of 2				
1.	1. Segment Description (Process/Fuel Type) (limit to 500 characters):							
	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 . 897,800	Annual Rate:		Estimated Annual Activity Factor:		
7.	Maximum % Sulfur:	8.	Maximum (% Ash:	9.	Million Btu per SCC Unit: 7.2		
10.	Segment Comment (limit	to 20	00 characters):				
	Maximum hourly rate based on 812 MMBtu/hr (1-hr max) and maximum annual rate based on 738 MMBtu/hr (24-hr max).							
Se	gment Description and Ra	<u>ite:</u>	Segment 2	e_ of		37		
1.	Segment Description (Pro	cess/	Fuel Type)	(limit to 500 ch	aracte	ers):		
	External combustion boilers; Industrial; Distillate Oil; Grades 1 and 2							
2.	Source Classification Code	e (SO	CC):	3. SCC Units		ns Burned		
4.	Maximum Hourly Rate: 2.417	5.	Maximum . 4,500	Annual Rate:		Estimated Annual Activity Factor:		
7.	Maximum % Sulfur: 0.05	8.	Maximum % Ash:		9.	Million Btu per SCC Unit: 135		
10.	Segment Comment (limit	to 20	00 characters):				
	Rates based on proposed 326.25 MMBtu/hr and a maximum of 4,500,000 gallons of fuel oil per year.							

Emissions Unit Information Section	1	of	1	Boiler No. 7
Pollutant Detail Information Page	1	of	10	Particulate Matter – Total

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

1.	Pollutant Emitted:	2.	Tota	l Percent E	fficien	cy of Control:
1.		۷.	1014	il i Ciccini L	11101011	cy of Control.
	PM					
3.	Potential Emissions:					I. Synthetically
	24.4 lb/hour	97	<u>.</u>	tons/year		Limited? []
5.	Range of Estimated Fugitive Emissions:					
	[] 1 [] 2 [] 3			to		/year
6.	Emission Factor: 0.03 lb/MMBtu				7	7. Emissions
	Reference: Permit No. 0510003-014	I-AV				Method Code:
8.	Calculation of Emissions (limit to 600 charac	cters):			
	812 MMBtu/hr x 0.03 lb/MMBtu = 24.4 lb/hr Annual limit from Permit No. 0510003-014-AV	for k	aga	sse firing.		
9.	Pollutant Potential/Fugitive Emissions Comm	ment	(lim	it to 200 ch	aracte	rs):
	Potential emissions representative of bagass	e firi	ng.			
All	lowable Emissions Allowable Emissions	1	of_	2		
1.	Basis for Allowable Emissions Code: OTHER	2.		ure Effectivissions:	e Date	of Allowable
3.	Requested Allowable Emissions and Units:	4.	Equ	ivalent All	owable	Emissions:
	0.03 lb/MMBtu			24.4 lb/h	our	97 tons/year
5.	Method of Compliance (limit to 60 character	rs):				
	EPA Method 5 or 17					
6.	Allowable Emissions Comment (Desc. of Op	perat	ing N	Method) (lii	mit to 2	200 characters):
	Permit No. 0510003-014-AV. Emissions repre	sent	ative	of bagasse	firing	only.

Emissions Unit Information Section	1	of	1	Boiler No. 7
Pollutant Detail Information Page	1	of	10	Particulate Matter – Total

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Emissions-Limited and Preconstruction Review Pollutants Only)

1.	Pollutant Emitted:	2. Total Percent Efficie	ency of Control:
	PM		
3.	Potential Emissions:		4. Synthetically
	lb/hour	tons/year	Limited? []
5.	Range of Estimated Fugitive Emissions:	4	
		to tor	ns/year
6.	Emission Factor:		7. Emissions Method Code:
	Reference:		wiethod Code.
8.	Calculation of Emissions (limit to 600 charac	cters):	
9.	Pollutant Potential/Fugitive Emissions Comm	ment (limit to 200 charact	ters):
All	lowable Emissions Allowable Emissions	2 of 2	
1.		2. Future Effective Da	te of Allowable
1.	OTHER	Emissions:	ne of Anowable
3.	Requested Allowable Emissions and Units:	4. Equivalent Allowab	ole Emissions:
	0.03 lb/MMBtu	9.8 lb/hour	9.1 tons/year
5.	Method of Compliance (limit to 60 character	rs):	
	EPA Method 5 or 17		
	EFA Method 5 of 17		
6.	Allowable Emissions Comment (Desc. of Op	perating Method) (limit to	200 characters):
	Emissions representative of No. 2 fuel oil firing	ng only. Annual emission	s based on proposed
	limit of 4,500,000 gal/yr. See Attachment UC-		T TTOO OII Proposed

Emissions Unit Information Section	1	of	1
Pollutant Detail Information Page	2	of	10

Boiler No. 7

Particulate Matter - PM₁₀

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

1.	Pollutant Emitted:	2.	To	tal	Percent I	Efficie	ency	of Control:
	PM ₁₀							
3.	Potential Emissions: 24.4 lb/hour	9	 7		tons/yea	r	4.	Synthetically Limited? []
5.	Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3				_ to	to:	ns/y	ear
6.	Emission Factor: 0.03 lb/MMBtu				-		7.	Emissions
	Reference: Permit No. 0510003-014							Method Code: 0
8.	Calculation of Emissions (limit to 600 chara	cters	;):					
	812 MMBtu/hr x 0.03 lb/MMBtu = 24.4 lb/hr Annual limit from Permit No. 0510003-014-AV	' for I	bag	gas	se firing.			
9.	Pollutant Potential/Fugitive Emissions Comm	ment	(li	mi	t to 200 c	harac	ters)):
	Potential emissions representative of bagass	e firi	ing.	•				
<u>Al</u>	lowable Emissions Allowable Emissions	1	of	· 	2			
1.	Basis for Allowable Emissions Code: OTHER	2.			re Effecti ssions:	ve Da	ate o	f Allowable
3.	Requested Allowable Emissions and Units:	4.	E	qui	valent Al	lowal	ole E	Emissions:
	0.03 lb/MMBtu				24.4 lb/	hour		97 tons/year
5.	Method of Compliance (limit to 60 character	rs):						
	EPA Method 5 or 17							
6.	Allowable Emissions Comment (Desc. of O	perat	ing	g N	lethod) (l	imit t	o 20	0 characters):
	Permit No. 0510003-014-AV. Emissions repre	sent	ativ	ve	of bagass	se firir	ng oi	nly.

Emissions Unit Information Section	1	of	1	Boiler No. 7
Pollutant Detail Information Page	2	of	10	Particulate Matter – PM ₁₀

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

1.	Pollutant Emitted:	2. Total Percent Efficie	ency of Control:
	PM ₁₀	•	•
3.	Potential Emissions:	tons/year	4. Synthetically Limited? []
5.	Range of Estimated Fugitive Emissions:		
	[] 1 [] 2 [] 3	to to	ns/year
6.	Emission Factor:		7. Emissions
	Reference:		Method Code:
8.	Calculation of Emissions (limit to 600 charac	cters):	
			:
			·
0	Pollutant Potential/Fugitive Emissions Comm	nent (limit to 200 charac	ters).
7.	Tondiane Totellian agitive Linissions Com	nem (mm to 200 charac	1013).
All	lowable Emissions Allowable Emissions	2 of 2	
1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Da Emissions:	ite of Allowable
3.	Requested Allowable Emissions and Units:	4. Equivalent Allowab	ole Emissions:
	0.03 lb/MMBtu	9.8 lb/hour	9.1 tons/year
5.	Method of Compliance (limit to 60 character	rs):	-
	EPA Method 5 or 17		
6.	Allowable Emissions Comment (Desc. of Op	perating Method) (limit to	200 characters):
	Emissions representative of No. 2 fuel oil firin limit of 4,500,000 gal/yr. See Attachment UC-		is based on proposed

Emissions Unit Information Section	1	of	1	Boiler No. 7
Pollutant Detail Information Page	3	of	10	Sulfur Dioxide

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

<u> </u>				
1.	Pollutant Emitted:	2. To	tal Percent Effic	iency of Control:
	SO ₂			
3.	Potential Emissions:			4. Synthetically
	138.0 lb/hour	550	tons/year	Limited? []
5.	Range of Estimated Fugitive Emissions:			,
	[] 1 [] 2 [] 3 Emission Factor: 0.17 lb/MMBtu		to to	ons/year 7. Emissions
6.				7. Emissions Method Code:
	Reference: Permit No. 0510003-014	4-AV	<u> </u>	0
8.	Calculation of Emissions (limit to 600 chara	cters):		
	812 MMBtu/hr x 0.17 lb/MMBtu = 138.0 lb/hr			
	Annual limit from Permit No. 0510003-014-AV	for bag	gasse firing.	
9.	Pollutant Potential/Fugitive Emissions Com-	ment (li	mit to 200 chara	cters):
	Potential emissions representative of bagass	se firing		
	. Contain of Dagase	,	•	
Al	lowable Emissions Allowable Emissions	1 of	2	
1.	Basis for Allowable Emissions Code:		 uture Effective D	ate of Allowable
- •	OTHER		missions:	
3.	Requested Allowable Emissions and Units:	4. E	quivalent Allowa	ble Emissions:
	0.17 lb/MMBtu		138.0 lb/hour	550 tons/year
5.	Method of Compliance (limit to 60 character	rs):		
	EPA Method 6			
	EFA Metriod 6			
6.	Allowable Emissions Comment (Desc. of O	perating	g Method) (limit	to 200 characters):
	Permit No. 0510003-014-AV. Emissions repre	neontat:	vo of hacases firi	na only
	Tomme No. 0010000-014-AV. Emissions repre	330IIIALI	ve oi nayasse iiii	ng omy.

Emissions Unit Information Section	1	of	1	Boiler No. 7
Pollutant Detail Information Page	3	of	10	Sulfur Dioxide

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:				
SO₂					
3. Potential Emissions: lb/hour	4. Synthetically tons/year Limited? []				
5. Range of Estimated Fugitive Emissions:					
[]1 []2 []3	totons/year				
6. Emission Factor:	7. Emissions				
Reference:	Method Code:				
8. Calculation of Emissions (limit to 600 chara	acters):				
	•				
9. Pollutant Potential/Fugitive Emissions Com	9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):				
Allowable Emissions Allowable Emissions	2 of 2				
 Basis for Allowable Emissions Code: OTHER 	2. Future Effective Date of Allowable Emissions:				
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:				
0.05 lb/MMBtu	16.3 lb/hour 15.2 tons/year				
5. Method of Compliance (limit to 60 characte	rs):				
EPA Method 6					
6. Allowable Emissions Comment (Desc. of O	perating Method) (limit to 200 characters):				
Emissions representative of No. 2 fuel oil firi limit of 4,500,000 gal/yr. See Attachment UC	ng only. Annual emissions based on proposed -EU1-G8 for calculations.				

DEP Form No. 62-210.900(1) - Form Effective: 2/11/99

Emissions Unit Information Section	1	of	1
Pollutant Detail Information Page	4	of	10

Boiler No. 7 Nitrogen Oxides

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

1.	Pollutant Emitted:	2.	Tota	al Percent	Efficie	ency of Control:		
	NO _x							
3.	Potential Emissions:					4. Synthetically		
	203 lb/hour	80	9	tons/yea	ır	Limited? []		
5.	Range of Estimated Fugitive Emissions:			•				
<u>.</u>	[] 1 [] 2 [] 3			to	tor	ns/year		
6.	Emission Factor: 0.25 lb/MMBtu				-	7. Emissions		
	Reference: Permit No. 0510003-14-	ΑV				Method Code:		
8.	8. Calculation of Emissions (limit to 600 characters):							
	812 MMBtu/hr x 0.25 lb/MMBtu = 203.0 lb/hr Annual limit from Permit No. 0510003-014-AV	for	hada	eso firina				
	Aimai mine from Ferrine No. 0510005-014-AV	101	Jaya	isse ming.				
<u> </u>	D. H D		<u> </u>	*** 000	•			
9.	Pollutant Potential/Fugitive Emissions Comr	nent	(lim	nit to 200 o	charact	ters):		
	Potential emissions representative of bagass	e firi	na.					
		•						
All	lowable Emissions Allowable Emissions	1	of_					
1.		2.			ive Da	ite of Allowable		
_	OTHER			issions:				
3.	Requested Allowable Emissions and Units:	4.	Εqι	uivalent A	llowab	ole Emissions:		
	0.25 lb/MMBtu			203 lb/	/hour	809 tons/year		
5.	Method of Compliance (limit to 60 character	s):						
	FDA Mathad 7 75							
	EPA Method 7 or 7E							
6.	Allowable Emissions Comment (Desc. of Or	erat	ing l	Method) (1	limit to	200 characters):		
	Permit No. 0510003-014-AV. Emissions repre			of bosses	na firin	a only		
	relinit No. 0310003-014-AV. Emissions repre	SULL	auve	ะ บเ ทรกิฐ2	s u iifin	у опу.		

Emissions Unit Information Section	1	of	1	Boiler No. 7
Pollutant Detail Information Page	4	of	10	Nitrogen Oxides

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

1.	Pollutant Emitted:	2. Total Percent Efficiency of Control:			
3.	Potential Emissions:	4. Synthetically tons/year Limited? []			
5.	Range of Estimated Fugitive Emissions:				
	[] 1 [] 2 [] 3	to tons/year			
6.	Emission Factor:	7. Emissions			
	Reference:	Method Code:			
8.	Calculation of Emissions (limit to 600 chara	cters):			
		ļ			
9.	Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 characters):			
All	lowable Emissions Allowable Emissions	2 of 2			
1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:			
3.	Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:			
	0.2 lb/MMBtu	65.3 lb/hour 60.8 tons/year			
5.	Method of Compliance (limit to 60 character	rs):			
	EPA Method 7 or 7E				
6.	Allowable Emissions Comment (Desc. of O	perating Method) (limit to 200 characters):			
	Emissions representative of No. 2 fuel oil firing limit of 4,500,000 gal/yr. See Attachment UC-	ng only. Annual emissions based on proposed -EU1-G8 for calculations.			

Emissions Unit Information Section	1	of	_1_
Pollutant Detail Information Page	5	of	10

Boiler No. 7

Carbon Monoxide

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Emissions-Limited and Preconstruction Review Pollutants Only)

1. Pollutant E	mitted:		2	Total	Percer	nt Efficie	encv	of Control:
CO	imittod.		2.	Total	i i cicci	nt Ellion	Jilo y	or control.
								<u> </u>
3. Potential E		11- 7			4		1	Synthetically
6 D 65	568.4	lb/hour	2,20)Z	tons/y	уеаг		Limited? []
5. Range of E		gitive Emissions: 2 [] 3	_		_ to _	to:	ns/ye	ar
6. Emission F	actor: 0.	70 lb/MMBtu				•	7.	Emissions
Refe	ence: Pe	ermit No. 0510003-014	1-AV					Method Code:
8. Calculation	8. Calculation of Emissions (limit to 600 characters):							
	812 MMBtu/hr x 0.70 lb/MMBtu = 568.4 lb/hr Annual limit from in Permit No. 0510003-014-AV for bagasse firing.							
9. Pollutant P	 otential/Fugi	tive Emissions Com	ment	(lim	it to 20	0 charac	ters):	
				(20	o Unarao		
Potential er	nissions rep	resentative of bagass	e firi	ng.				
Allowable Em	issions Allo	wable Emissions	1	of_	2			
1. Basis for A	llowable Em	issions Code:	2.	Futu	ire Effe	ective Da	ate of	Allowable
OTHER				Emi	ssions:			
3. Requested	Allowable E	missions and Units:	4.	Equ	ivalent	Allowal	ole E	missions:
0.70 lb/MM6	Stu				568.4	lb/hour		2,262 tons/year
5. Method of	Compliance	(limit to 60 character	rs):					
FDA M -45-	1.40							
EPA Metho	10							
6. Allowable	Emissions C	omment (Desc. of O	perat	ing N	/lethod)) (limit t	o 200) characters):
Permit No.)510003-014-	AV. Emissions repre	sent	ative	of bag	asse firir	ıg on	ly.
						-		

Emissions Unit Information Section	1_	of	1	
Pallutant Datail Information Page	5	οf	10	

Boiler No. 7

Carbon Monoxide

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

1.	Pollutant Emitted:	2. Total Percent Efficiency of Control:
	со	
3.	Potential Emissions:	4. Synthetically
_	lb/hour	tons/year Limited? []
5.	Range of Estimated Fugitive Emissions:	to tongly room
6.	[] 1 [] 2 [] 3 Emission Factor:	totons/year7. Emissions
0.		Method Code:
	Reference:	
8.	Calculation of Emissions (limit to 600 charac	eters):
9.	Pollutant Potential/Fugitive Emissions Comm	nent (limit to 200 characters):
All	lowable Emissions Allowable Emissions	2 of 2
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
	OTHER	Emissions:
3.	Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
	0.066 lb/MMBtu	21.5 lb/hour 20.0 tons/year
5.	Method of Compliance (limit to 60 character	s):
	EPA Method 10	
6.	Allowable Emissions Comment (Desc. of Op	perating Method) (limit to 200 characters):
	Emissions representative of No. 2 fuel oil fivin	an only. Annual emissions based on proposed
	limit of 4,500,000 gal/yr. See Attachment UC-	ng only. Annual emissions based on proposed EU1-G8 for calculations.

Emissions Unit Information Section _	1	of	1	Boiler No. 7
Pollutant Detail Information Page	6	of	10	Volatile Organic Compound

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1.	Pollutant Emitted:	2. Total Percent Efficiency of Control:					
	voc						
3.	Potential Emissions: 172.1 lb/hour	68	35	tons/year	4.	Synthetically Limited? []	
5.	Range of Estimated Fugitive Emissions:			to to	ns/y	ear	
6.	Emission Factor: 0.212 lb/MMBtu				7.	Emissions	
	Reference: Permit No. 0510003-014-AV Method Co						
8.	8. Calculation of Emissions (limit to 600 characters):						
	812 MMBtu/hr x 0.212 lb/MMBtu = 172.1 lb/hr Annual limit from Permit No. 0510003-014-AV	for t	oaga	sse firing.			
9.	Pollutant Potential/Fugitive Emissions Comm	nent	(lim	it to 200 charac	ters)):	
	Potential emissions representative of bagass	e firi	ng.				
<u>Al</u>	lowable Emissions Allowable Emissions	1	of_	2			
1.	Basis for Allowable Emissions Code: OTHER	2.		ure Effective Da	ite o	f Allowable	
3.	Requested Allowable Emissions and Units:	4.	Equ	iivalent Allowal	ole E	Emissions:	
	0.212 lb/MMBtu			172.1 lb/hour		685 tons/year	
5.	Method of Compliance (limit to 60 character	s):					
	EPA Method 25 or 25A						
6.	Allowable Emissions Comment (Desc. of Op	erat	ing N	Method) (limit t	o 20	0 characters):	
	Permit No. 0510003-014-AV. Emissions repre	sent	ative	of bagasse firir	ıg oı	nl y .	

Emissions Unit Information Section	1_	of	1	Boiler No. 7
Pollutant Detail Information Page	6	of	10	Volatile Organic Compound

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

1.	Pollutant Emitted:	2. Total Percent Efficie	ency of Control:
	voc		
3.	Potential Emissions:		4. Synthetically
	lb/hour	tons/year	Limited? []
5.	Range of Estimated Fugitive Emissions:	4	
-	[] 1 [] 2 [] 3 Emission Factor:	to tor	ns/year 7. Emissions
о.			7. Emissions Method Code:
_	Reference:		
8.	Calculation of Emissions (limit to 600 charac	cters):	
			•
	<u> </u>		
9.	Pollutant Potential/Fugitive Emissions Comm	nent (limit to 200 charact	ters):
		•	
All	lowable Emissions Allowable Emissions	2 of 2	
1.	Basis for Allowable Emissions Code:	2. Future Effective Da	te of Allowable
	OTHER	Emissions:	1 5 ' '
3.	Requested Allowable Emissions and Units:	4. Equivalent Allowab	ole Emissions:
	0.004 lb/MMBtu	1.3 lb/hour	1.2 tons/year
5.	Method of Compliance (limit to 60 character	rs):	
	EPA Method 25 or 25A		
6.	Allowable Emissions Comment (Desc. of Op	perating Method) (limit to	200 characters):
	Ended to the Administration of the Administr	A	
	Emissions representative of No. 2 fuel oil firir limit of 4,500,000 gal/yr. See Attachment UC-		s based on proposed
	, , , , , , , , , , , , , , , , , , ,		

Emissions Unit Information Section	1	of	1
Pollutant Detail Information Page	7	of	10

Sulfuric Acid Mist

Boiler No. 7

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

-				/ ***		• . •		•	•	•	
L	n	tan	tเกเ	1 4		*****	70	М' Т	mic	CIA	nc
	u	LCII	tial	, .	ur		,		1113	2111	11.5

1.	Pollutant Emitted:	2.	Гota	l Percent E	Efficie	ncy of Control:	
	SAM					,	
3.	Potential Emissions: 13.8 lb/hour	55	;	tons/year	r	4. Synthetically Limited? []	
5.	Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	_		to	ton	s/year	
6.	Emission Factor: 0.017 lb/MMBtu					7. Emissions	
	Reference: Permit No. 0510003-014	I-AV				Method Code: 0	
8.	Calculation of Emissions (limit to 600 charac	cters)) :				
	812 MMBtu/hr x 0.017 lb/MMBtu = 13.8 lb/hr Annual limit from Permit No. 0510003-014-AV for bagasse firing.						
9.	Pollutant Potential/Fugitive Emissions Comm	ment	(lim	nit to 200 c	haract	ers):	
	Potential emissions representative of bagass	ie firii	ng.			·	
Al	lowable Emissions Allowable Emissions	1	of_	2			
1.	Basis for Allowable Emissions Code: OTHER	2.		ure Effecti issions:	ve Da	te of Allowable	
3.	Requested Allowable Emissions and Units:	4.	Eqı	ivalent Al	lowab	le Emissions:	
	0.017 lb/MMBtu			13.8 lb/l	hour	55 tons/year	
5.	Method of Compliance (limit to 60 character	rs):					
	EPA Method 8 when required						
6.	Allowable Emissions Comment (Desc. of Op	perati	ing l	Method) (li	imit to	200 characters):	
	Permit No. 0510003-014-AV. Emissions repre	sent	ative	of bagass	e firin	g only.	

Emissions Unit Information Section	1	of	1
Pollutant Detail Information Page	7	of	10

Boiler No. 7

Sulfuric Acid Mist

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

1.	Pollutant Emitted:	2. Total Percent Efficiency of Control:
	SAM	
3.	Potential Emissions: lb/hour	4. Synthetically tons/year Limited? []
5.	Range of Estimated Fugitive Emissions:	•
	[] 1 [] 2 [] 3	totons/year
6.	Emission Factor:	7. Emissions
	Reference:	Method Code:
8.	Calculation of Emissions (limit to 600 chara-	cters):
Q	Pollutant Potential/Fugitive Emissions Comm	nent (limit to 200 characters):
9.	Fondant Fotential/Fugitive Emissions Com	ment (mint to 200 characters).
	•	
Al	owable Emissions Allowable Emissions	2 of 2
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
	OTHER	Emissions:
3.	Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
	0.005 lb/MMBtu	1.6 lb/hour 1.5 tons/year
5.	Method of Compliance (limit to 60 character	rs):
	EPA Method 8 when required	
6.	Allowable Emissions Comment (Desc. of Op	perating Method) (limit to 200 characters):
	Emissions representative of No. 2 fuel oil firing	ng only. Annual emissions based on proposed
	limit of 4,500,000 gal/yr. See Attachment UC-	

Attachment UC-EU1-G8. Future Maximum Emissions due to Fuel Oil, Boiler No. 7, US Sugar Corporation Clewiston (revised 12/17/2002)

			No. 2 Fu	iel Oil Combustior	<u> </u>		
	Emission				Hourly	Annual	
Regulated Pollutant	Factor Ref.		Activity	Activity Factor ^a		Emissions	
•	(lb/MMBtu)	•	Hourly ^a	Annual ^b	(lb/hr)	(TPY)	
			MMBtu/hr	MMBtu/yr b		_ · · · · · · · · · · · · · · · · · · ·	
Particulate Matter (PM)	0.03	1	326.25	607,500	9.8	9.1	
Particulate Matter (PM ₁₀)	0.03	1	326.25	607,500	9.8	9.1	
Sulfur dioxide (SO ₂)	0.05	1	326.25	607,500	16.3	15.2	
Nitrogen oxides (NO _x)	0.2	1	326.25	607,500	65.3	60.8	
Carbon monoxide (CO)	0.066	1	326.25	607,500	21.5	20.0	
Volatile Organic Compound (VOC)	0.004	1	326.25	607,500	1.3	1.2	
Lead (Pb)	9.0E-06	2	326.25	607,500	2.9E-05	2.7E-05	
Sulfuric acid mist (SAM)	0.005	1	326.25	607,500	1.6	1.5	
Beryllium (Be)	3.0E-06	2	326.25	607,500	9.8E-06	9.1E-06	
Mercury (Hg)	3.0E-06	2	326.25	607,500	9.8E-04	9.1E-04	

References:

- 1. Based on Permit No. 0510003-14-AV.
- 2. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-10, "Emission Factors for Trace Elements from Distillate Fuel Oil Combustion Sources" (9/98). Assumes a 99% removal efficiency for lead and beryllium due to ESP control.

Footnotes:

- ^a Based on proposed maximum heat input due to fuel oil combustion, calculated as follows: 225,000 lb/hr steam x 1160 Btu/lb (net) / 0.80 / 1E+06 = 326.25 MMBtu/hr
- ^b Based on proposed maximum allowable fuel usage of 4,500,000 gallons per year and 135,000 Btu/gal.



Department of Environmental Protection

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

David B. Struhs Secretary

December 10, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William A. Raiola, V.P. of Sugar Processing Operations United States Sugar Corporation 111 Ponce Deleon Avenue Clewiston, Florida 33440

Re:

Reminder of Request for Additional Information Project No. 0510003-018-AC (PSD-FL-208A) Clewiston Sugar Mill and Refinery Increase in Oil Firing Rate for Boiler No. 7

Dear Raiola:

On October 11, 2002, the Department received your application and sufficient fee for an air construction permit to increase the oil firing rate for Boiler No. 7 at the Clewiston sugar mill and refinery. The application was incomplete. On October 22, 2002, the Department requested you to submit additional information that would allow continued processing of your application. To date, we have not received the requested additional information and the application remains incomplete. Rule 62-4.055(1) of the Florida Administrative Code requires the following:

"The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department. If an applicant requires more than ninety days in which to respond to a request for additional information, the applicant may notify the Department in writing of the circumstances, at which time the application shall be held in active status for one additional period of up to ninety days. Additional extensions shall be granted for good cause shown by the applicant. A showing that the applicant is making a diligent effort to obtain the requested additional information shall constitute good cause. Failure of an applicant to provide the timely requested information by the applicable deadline shall result in denial of the application."

It has been more than 45 days since our last request for additional information (copy attached). You are reminded that the permit processing time clock has stopped for this project and that we will not continue our review until we receive the additional information. If you require a period of time in addition to the 90 days allowed by rule, please submit a written request indicating the amount of time necessary. If you fail to provide the additional information or request additional time to submit the additional information, the Department will deny your application.

If you have any questions regarding this matter, please call me at 850/921-9536.

Sincerely,

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

cc: Mr. David Buff, Golder Associates

Mr. Ron Blackburn, SD

Mr. Gregg Worley, EPA Region 4

Mr. John Bunyak, NPS

AAL/jfk

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 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: Mr. William A. Raiola V. P. of Sugar Processing Ounited States Sugar Corpora 111 Ponce DeLeon Avenue Clewiston, FL 33440 	D. Is delivery address different from item 1? Yes If YES, enter delivery address below: No
2. Ar 7001 0320 0001 3692	7430

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70	City, State. ZIP+4 Clewisto	n, FL 334	440						
	PS Form 3800, January 2001 See Reverse for Instructions								



Department of **Environmental Protection**

leb Bush Governor

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

David B. Struhs Secretary

October 22, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William A. Raiola, V.P. of Sugar Processing Operations United States Sugar Corporation 111 Ponce Deleon Avenue Clewiston, Florida 33440

Re:

Request for Additional Information

Project No. 0510003-018-AC (PSD-FL-208A) Clewiston Sugar Mill and Refinery Increase in Oil Firing Rate for Boiler No. 7

Dear Mr. Raiola:

On October 11, 2002, the Department received your application and sufficient fee for an air construction permit to increase the oil firing rate for Boiler No. 7 at the Clewiston sugar mill and refinery. The application is incomplete. In order to continue processing your application, the Department will need the additional information requested below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

- 1. The proposed project would increase the maximum heat input rate for Boiler No. 7 from 250 MMBtu per hour to 321 MMBtu per hour by adding two new oil pumps and modifying the existing burners. Please identify the number of burners and oil guns before the project and upon completion of the project. What is the maximum oil-firing rate in terms of gph based on the HHV of the distillate oil?
- 2. If approved, the proposed project would require modification of the following conditions of Permit No. PSD-FL-208:
 - Condition No. 1: The project proposes to modify the maximum heat input rate from oil firing and the corresponding allowable emissions (lb/MMBtu, lb/hour, and tons/year).
 - Condition No. 8: The project proposes to increase the maximum heat input rate from oil firing, the equivalent oil firing rate (gph), equivalent steam production (pounds per hour), and possibly the burner/oil gun configuration.
 - Condition No. 9: The project proposes to decrease the allowable annual oil-firing rate from 4,600,000 gallons per year to 4,500,000 gallons per year.
 - Condition No. 11: The project proposes to increase the designed maximum oil heat input rate from 250 MMBtu/hour (HHV, 1-hour average) to 321 MMBtu/hour (HHV, 1-hour average).
 - Please comment. In addition, Condition No. 9 limits the annual capacity factor for distillate oil to 10%. Is the purpose of this condition to avoid applicable requirements of NSPS Subpart Db? Please discuss.
- 3. In addition to PSD BACT standards specified in Permit No. PSD-FL-208, Boiler No. 7 is also subject to Rule 62-296.405, F.A.C. and 40 CFR 60.49b for industrial-commercial-institutional steam generating units. Does the proposed project trigger any additional requirements of these regulations or any new regulations?

"More Protection, Less Process"

Request for Additional Information Project No. 0510003-018-AC Boiler No. 7, Increase in Oil Firing Rate

Will the proposed project subject Boiler No. 7 to NSPS Subpart D for fossil fuel fired steam generators (40 CFR 60.40, 60.41, 60.42, 60.43, 60.44, 60.45, and 60.46)?

4. Boiler No. 7 was also part of a PSD-preconstruction review that modified the operations of Boiler No. 4, which resulted in the following additional conditions for Boiler No. 7 as specified in Section IIIB of Permit No. PSD-FL-272A:

Condition No. 4e: 385,000 pounds of steam per hour, 812 mmBTU per hour of total heat input, and 1839 gallons of oil per hour.

Condition No. 5d: Any distillate oil fired in Boiler No. 7 shall contain no more than 0.05% sulfur by weight.

Condition No. 7a(2): Boiler No. 7 shall not produce more than 8,400,000 pounds of steam during any 24-hour period.

Section IIIB also includes the following explanation for these additional requirements.

"The PSD permit for Boiler No. 4 (PSD-FL-272A) was issued based on an Air Quality Analysis using the ISC PRIME model that contained several operational constraints on existing emissions units. These constraints are now enforceable conditions of the permit and are in addition to any limits imposed by other valid permits. Modification of these constraints would require modification of the PSD permit and a new Air Quality Analysis."

In accordance with Rules 62-212.300(1) and 62-212.400(5)(d), F.A.C., please provide reasonable assurance that the proposed project will not cause or contribute to a violation of any ambient air quality standard or maximum allowable increase. For additional information, please contact Cleve Holladay at 850/921-8986.

The Department will resume processing your application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. For any material changes to the application, please include a new certification statement by the authorized representative or responsible official. You are reminded that Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within 90 days or provide a written request for an additional period of time to submit the information.

If you have any questions regarding this matter, please call me at 850/921-9536.

Sincerely,

Jeffery F. Koerner, P.E.

New Source Review Section

cc: Mr. David Buff, Golder Associates

Mr. Ron Blackburn, SD

Mr. Gregg Worley, EPA Region 4

Mr. John Bunyak, NPS



Department of Environmental Protection

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

David B. Struhs Secretary

October 22, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William A. Raiola, V.P. of Sugar Processing Operations United States Sugar Corporation 111 Ponce Deleon Avenue Clewiston, Florida 33440

Re:

Request for Additional Information

Project No. 0510003-018-AC (PSD-FL-208A) Clewiston Sugar Mill and Refinery Increase in Oil Firing Rate for Boiler No. 7

Dear Mr. Raiola:

On October 11, 2002, the Department received your application and sufficient fee for an air construction permit to increase the oil firing rate for Boiler No. 7 at the Clewiston sugar mill and refinery. The application is incomplete. In order to continue processing your application, the Department will need the additional information requested below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

- 1. The proposed project would increase the maximum heat input rate for Boiler No. 7 from 250 MMBtu per hour to 321 MMBtu per hour by adding two new oil pumps and modifying the existing burners. Please identify the number of burners and oil guns before the project and upon completion of the project. What is the maximum oil-firing rate in terms of gph based on the HHV of the distillate oil?
- 2. If approved, the proposed project would require modification of the following conditions of Permit No. PSD-FL-208:
 - Condition No. 1: The project proposes to modify the maximum heat input rate from oil firing and the corresponding allowable emissions (lb/MMBtu, lb/hour, and tons/year).
 - Condition No. 8: The project proposes to increase the maximum heat input rate from oil firing, the equivalent oil firing rate (gph), equivalent steam production (pounds per hour), and possibly the burner/oil gun configuration.
 - Condition No. 9: The project proposes to decrease the allowable annual oil-firing rate from 4,600,000 gallons per year to 4,500,000 gallons per year.
 - Condition No. 11: The project proposes to increase the designed maximum oil heat input rate from 250 MMBtu/hour (HHV, 1-hour average) to 321 MMBtu/hour (HHV, 1-hour average).
 - Please comment. In addition, Condition No. 9 limits the annual capacity factor for distillate oil to 10%. Is the purpose of this condition to avoid applicable requirements of NSPS Subpart Db? Please discuss.
- 3. In addition to PSD BACT standards specified in Permit No. PSD-FL-208, Boiler No. 7 is also subject to Rule 62-296.405, F.A.C. and 40 CFR 60.49b for industrial-commercial-institutional steam generating units. Does the proposed project trigger any additional requirements of these regulations or any new regulations?

Request for Additional Information Project No. 0510003-018-AC Boiler No. 7, Increase in Oil Firing Rate

Will the proposed project subject Boiler No. 7 to NSPS Subpart D for fossil fuel fired steam generators (40 CFR 60.40, 60.41, 60.42, 60.43, 60.44, 60.45, and 60.46)?

4. Boiler No. 7 was also part of a PSD-preconstruction review that modified the operations of Boiler No. 4, which resulted in the following additional conditions for Boiler No. 7 as specified in Section IIIB of Permit No. PSD-FL-272A:

Condition No. 4e: 385,000 pounds of steam per hour, 812 mmBTU per hour of total heat input, and 1839 gallons of oil per hour.

Condition No. 5d: Any distillate oil fired in Boiler No. 7 shall contain no more than 0.05% sulfur by weight.

Condition No. 7a(2): Boiler No. 7 shall not produce more than 8,400,000 pounds of steam during any 24-hour period.

Section IIIB also includes the following explanation for these additional requirements.

"The PSD permit for Boiler No. 4 (PSD-FL-272A) was issued based on an Air Quality Analysis using the ISC PRIME model that contained several operational constraints on existing emissions units. These constraints are now enforceable conditions of the permit and are in addition to any limits imposed by other valid permits. Modification of these constraints would require modification of the PSD permit and a new Air Quality Analysis."

In accordance with Rules 62-212.300(1) and 62-212.400(5)(d), F.A.C., please provide reasonable assurance that the proposed project will not cause or contribute to a violation of any ambient air quality standard or maximum allowable increase. For additional information, please contact Cleve Holladay at 850/921-8986.

The Department will resume processing your application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. For any material changes to the application, please include a new certification statement by the authorized representative or responsible official. You are reminded that Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within 90 days or provide a written request for an additional period of time to submit the information.

If you have any questions regarding this matter, please call me at 850/921-9536.

Sincerely,

Jeffery F. Koerner, P.E.

New Source Review Section

cc: Mr. David Buff, Golder Associates

Mr. Ron Blackburn, SD

Mr. Gregg Worley, EPA Region 4

Mr. John Bunyak, NPS

SENDER: COMPLETE THIS S	ECTION	COMPLETE THIS S.	ECTION ON DEL	IVERY
 Complete items 1, 2, and 3. A item 4 if Restricted Delivery is Print your name and address so that we can return the card Attach this card to the back o or on the front if space permit 	desired, on the reverse to you, the mailpiece,	A. Received by (Plea A. O. 1. C. G. Signature	ise Print Clearly) Sof. S Adul	B. Date of Deliv
Article Addressed to:		D. Is delivery address If YES, enter deliv		
Mr. William A. R V.P. of Sugar Pr United States Su 111 Ponce DeLeon Clewiston, FL 33	cocessing O gar Corpor Avenue	3. Service Type	☐ Express Mai	
		Registered Insured Mail		ipt for Merchandi
	···	 Restricted Delivery 	? (Extra Fee)	☐ Yes
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3692	Postage Certified Fee	S							
0007	Return Receipt Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required)		Postmark Here						
0320	Total Postage & Fees	S							
7001	William A. Raiola Street, Apr. No. or APPA NoPonce DeLeon Avenue Chastate Zip. 1 Clewiston, FL 33440								
	PS Form 3800, January 2001 See Reverse for Instructions								