

**AIR CONSTRUCTION PERMIT APPLICATION FOR
PEEL DRYER BURNER UPGRADES
TROPICANA PRODUCTS, INC.
FORT PIERCE CITRUS PROCESSING PLANT
FORT PIERCE, FLORIDA**

Prepared For:

**Tropicana Products, Inc.
6500 Glades Cutoff Road
Fort Pierce, Florida 34981**

Prepared By:

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

**June 2002
0137653**

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**4 Copies - FDEP, Bureau of Air Regulation
1 Copy - FDEP, Southeast District Office
2 Copies - Tropicana Products, Inc.
2 Copies - Golder Associates Inc.**

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BUREAU OF AIR REGULATION

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PART I

AIR PERMIT APPLICATION



Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: Tropicana Products, Inc.	
2. Site Name: Ft. Pierce Citrus Processing Plant	
3. Facility Identification Number: 1110004	<input type="checkbox"/> Unknown
4. Facility Location: Street Address or Other Locator: 6500 Glades Cutoff Road City: Ft. Pierce County: St. Lucie Zip Code: 34981	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Name and Title of Application Contact: Douglas E. Foster, Manager Environmental Affairs	
2. Application Contact Mailing Address: Organization/Firm: Tropicana Products, Inc. Street Address: 1001 13th Avenue, East City: Bradenton State: FL Zip Code: 34208	
3. Application Contact Telephone Numbers: Telephone: (941) 742 - 2748 Fax: (941) 742 - 3768	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	<i>6/26/2002</i>
2. Permit Number:	<i>1110004-006-AC</i>
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

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Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

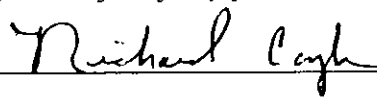
- Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.
Current construction permit number: _____
- Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.
Current construction permit number: _____
Operation permit number to be revised: _____
- Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)
Operation permit number to be revised/corrected: _____
- Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.
Operation permit number to be revised: _____
Reason for revision: _____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

- Air construction permit to construct or modify one or more emissions units.
- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official: Richard Coyle, Director of Operators
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Tropicana Products, Inc. Street Address: 6500 Glades Cutoff Road City: Ft. Pierce State: FL Zip Code: 34981
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (772) 465 - 2030 Fax: (772) 465 - 2855
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [], if so) or the responsible official (check here [], if so) of the Title V source addressed in this application, whichever is applicable. 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. 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 any permitted emissions unit.</i>  Signature _____ Date <u>6-21-02</u>

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: Kennard F. Kosky Registration Number: 14996
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 Fax: (352) 336 - 6603

4. 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.

If the purpose of this application is to obtain a Title V source 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 schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], 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.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision 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.

Hermod F. Early

Signature

6/20/02

Date

(seal) *HE*

* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
001, 004	Peel Dryers No. 1 and No. 2 with Waste Heat Evaporator	AC1A	

Application Processing Fee

Check one: [] Attached - Amount: \$: _____ [X] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

This application is for air construction permit for upgrading the burners on the peel dryers at the existing facility. The facility currently has 2 peel dryers with an actual maximum heat input of 65 MMBtu/hour. The burners will be modified to fire at a maximum 84 MMBtu/hour and will comply with 403.08725 F.S. The current Title V permit authorizes a maximum heat input of 84 MMBtu/hour.

2. Projected or Actual Date of Commencement of Construction: 1 Sept 2002

3. Projected Date of Completion of Construction: 1 Sept 2003

Application Comment

There is no change in emission units at the facility. Information in the application form addressed requested changes to the fuel usage and emission rates for the peel dryers. Changes for EU 001 and 004 (Peel Dryers) include:

- 1) Increasing the actual heat input from 65 MMBtu/hr to 84 MMBtu/hr for each dryer.
- 2) Modifying fuel usage and emission rates based on 403.08725 F.S.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: 17 East (km): 561.0 North (km): 3028.1			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): 27 / 22 / 35 Longitude (DD/MM/SS): 80 / 23 / 36			
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 20	6. Facility SIC(s): 2033
7. Facility Comment (limit to 500 characters): Citrus Processing Plant - consists of two existing peel dryers with associated evaporators, two pellet mills and coolers, fifty-five juice extractors, three process steam boilers, a package boiler and associated insignificant emission units.			

Facility Contact

1. Name and Title of Facility Contact: Scott Davis, Environmental Operations Manager			
2. Facility Contact Mailing Address: Organization/Firm: Tropicana Products, Inc. Street Address: 6500 Glades Cutoff Road City: Ft. Pierce State: FL Zip Code: 34981			
3. Facility Contact Telephone Numbers: Telephone: (772) 465 - 2030 Fax: (772) 429 - 6476			

Facility Regulatory Classifications

Check all that apply:

1. <input type="checkbox"/> Small Business Stationary Source?	<input type="checkbox"/> Unknown
2. <input checked="" type="checkbox"/> Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. <input type="checkbox"/> Synthetic Minor Source of Pollutants Other than HAPs?	
4. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)?	
5. <input type="checkbox"/> Synthetic Minor Source of HAPs?	
6. <input type="checkbox"/> One or More Emissions Units Subject to NSPS?	
7. <input type="checkbox"/> One or More Emission Units Subject to NESHAP?	
8. <input type="checkbox"/> Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters):	
<p>HAPs classification is based on limited test data.</p>	

List of Applicable Regulations

This application is being applied for under the following statutes:	
403.08725 F.S. Citrus Juice Processing Facilities	

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		
PM	A				Particulate Matter-Total
PM ₁₀	A				Particulate Matter-PM ₁₀
SO ₂	A				Sulfur Dioxide
NO _x	A				Nitrogen Oxides
CO	A				Carbon Monoxides
VOC	A				Volatile Organic Compounds
HAPs	A				Total Hazardous Air Pollutants
H115	A				Methanol

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Area Map Showing Facility Location: [<input checked="" type="checkbox"/>] Attached, Document ID: <u>Part II</u> [] Not Applicable [] Waiver Requested
2. Facility Plot Plan: [] Attached, Document ID: _____ [<input checked="" type="checkbox"/>] Not Applicable [] Waiver Requested
3. Process Flow Diagram(s): [] Attached, Document ID: _____ [<input checked="" type="checkbox"/>] Not Applicable [] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [] Attached, Document ID: _____ [<input checked="" type="checkbox"/>] Not Applicable [] Waiver Requested
5. Fugitive Emissions Identification: [] Attached, Document ID: _____ [<input checked="" type="checkbox"/>] Not Applicable [] Waiver Requested
6. Supplemental Information for Construction Permit Application: [<input checked="" type="checkbox"/>] Attached, Document ID: <u>Part II</u> [] Not Applicable
7. Supplemental Requirements Comment: <p>The facility process is not changing as a result of the project.</p> <p>Note: Volatile organic compound emissions will be lowered on a facility-wide basis through the use of citrus oil recovery. After October 31, 2002, 50-percent oil recovery is required as determined through a methodology specified in 403.08725 (9) F.S. One year after approval of the legislation by the U.S. Environmental Protection Agency (EPA), 65-percent oil recovery from citrus processing is required.</p>

Additional Supplemental Requirements for Title V Air Operation Permit Applications

8. List of Proposed Insignificant Activities: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
9. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input type="checkbox"/> Not Applicable
10. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
13. Risk Management Plan Verification: <input type="checkbox"/> Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: _____) or previously submitted to DEP (Date and DEP Office: _____) <input type="checkbox"/> Plan to be submitted to CEPPO (Date required: _____) <input type="checkbox"/> Not Applicable
14. Compliance Report and Plan: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
15. Compliance Certification (Hard-copy Required): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)**

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one) <input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent). <input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions. <input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one) <input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit. <input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <p style="text-align: center;">Peel Dryers No. 1 & 2</p>			
4. Emissions Unit Identification Number: [] No ID ID: 001 and 004 [] ID Unknown			
5. Emissions Unit Status Code: A	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20	8. Acid Rain Unit? []
9. Emissions Unit Comment: (Limit to 500 Characters) <p>Each dryer has identical capacity. The use of residual oil is proposed to be limited to 400 hours operation at 1.5 percent sulfur as of October 31, 2002. Also, distillate oil with 0.5 percent sulfur is proposed to be used as of October 31, 2002 and limited to 5,720 hours operation (at maximum residual oil firing). Segment and sulfur dioxide reflect this change.</p>			

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Wet scrubber – medium efficiency.

2. Control Device or Method Code(s): **2**

Emissions Unit Details

1. Package Unit:	
Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:	84 mmBtu/hr	
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	100,000 lb/hr (50 TPH)	
4. Maximum Production Rate:	40,000 lb/hr	
5. Requested Maximum Operating Schedule:	24 hours/day	7 days/week
	weeks/year	6,120 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	<p>Maximum Production Rate based on pressed wet peel per dryer. Process Throughput Rate varies depending on moisture per dryer rate shown. Annual requested production rate based on the amount of wet peel from processing 38,250,000 boxes of fruit per season.</p>	

**C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

List of Applicable Regulations

Rule 62-4.070(3), F.A.C.	
Rule 62-210.200, F.A.C.	
403.08725 F.S. Citrus Juice Processing Facilities	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? 001 & 004		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Gases from peel dryer and waste heat evaporator exhaust through evaporator stack.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code:	6. Stack Height: 95 feet	7. Exit Diameter: 3.2 feet	
8. Exit Temperature: 140 °F	9. Actual Volumetric Flow Rate: 30,000 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):			

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Food and Agricultural Fuel Fired Equipment, Natural Gas: Process Heaters.		
2. Source Classification Code (SCC): 3-02-900-03		3. SCC Units: Million cubic feet burned
4. Maximum Hourly Rate: 0.088	5. Maximum Annual Rate: 541	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 950
10. Segment Comment (limit to 200 characters): 84.0 MMBtu/hr maximum firing natural gas per dryer. Annual Rate based on 6,120 hr/yr. Information per dryer.		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Food and Agriculture, Citrus Feed Manufacture: Other; Process Weight.		
2. Source Classification Code (SCC): 3-02-999-98		3. SCC Units: Tons Processed (Input)
4. Maximum Hourly Rate: 50	5. Maximum Annual Rate: 306,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Wet peel input per dryer.		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Food and Agricultural Fuel Fired Equipment, Residual Oil: Process Heaters.		
2. Source Classification Code (SCC): 3-02-900-02		3. SCC Units: Thousand gallons burned
4. Maximum Hourly Rate: 0.56	5. Maximum Annual Rate: 1,613	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 1.5	8. Maximum % Ash:	9. Million Btu per SCC Unit: 150
10. Segment Comment (limit to 200 characters): 84.0 MMBtu/hr maximum firing residual oil per dryer. Annual Rate based on 2,880 hr/yr. As of October 31, 2002, the Maximum Annual Rate will be 224 based on 400 hr/yr. Information per dryer.		

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Food and Agricultural Fuel Fired Equipment, Distillate Oil: Process Heaters.		
2. Source Classification Code (SCC): 3-02-900-01		3. SCC Units: 1,000 Gallons Burned
4. Maximum Hourly Rate: 0.62	5. Maximum Annual Rate: 3,780	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.5	8. Maximum % Ash:	9. Million Btu per SCC Unit: 136
10. Segment Comment (limit to 200 characters): 84.0 MMBtu/hr maximum firing distillate oil per dryer. Annual Rate based on 6,120 hr/yr. Information per dryer.		

**F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			EL
SO ₂			EL
NO _x	0.34 lb/MMBtu - Oil		EL
PM ₁₀			EL

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

Potential/Fugitive Emissions

1. Pollutant Emitted: PM	2. Total Percent Efficiency of Control:
3. Potential Emissions: 32.4 lb/hour 99.1 tons/year	4. Synthetically Limited? [<input type="checkbox"/>]
5. Range of Estimated Fugitive Emissions: [<input type="checkbox"/>] 1 [<input type="checkbox"/>] 2 [<input type="checkbox"/>] 3 to tons/year	
6. Emission Factor: Rule 62-296.320(4)(a), F.A.C. – process weight table Reference:	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters): After October 31, 2002 15 lb/hr from 403.08725(2) F.S. See Part II for calculations.	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Emissions per dryer. Maximum lb/hr and annual based on all fuels. As of October 31, 2002, Potential Emissions will be 15 lb/hr and 48.9 TPY based on all fuels.	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: VE < 20% Opacity	4. Equivalent Allowable Emissions: 32.4 lb/hour 99.1 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 9	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Emissions per dryer. Maximum lb/hr and annual based on all fuels. As of October 31, 2002, Allowable Emissions will be 15 lb/hr and 48.9 TPY based on all fuels.	

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

Potential/Fugitive Emissions

1. Pollutant Emitted: SO₂	2. Total Percent Efficiency of Control:
3. Potential Emissions: 126 lb/hour 182 tons/year	4. Synthetically Limited? [<input checked="" type="checkbox"/>]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 1.5% S and 0.5% S oil; 1 gr S/100 CF of natural gas Reference: See Part II	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters): See Part II for calculations.	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Emissions per dryer. Maximum lb/hr based on residual oil; TPY based on 2,880 hr/yr on residual oil and 3,240 hr/yr on gas. As of October 31, 2002, TPY will be 147.1 based on 400 hr/yr on residual oil and 5,720 hr/yr on distillate oil.	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 1.5% Sulfur, 0.5% Sulfur	4. Equivalent Allowable Emissions: 126 lb/hour 182 tons/year
5. Method of Compliance (limit to 60 characters): Fuel Analyses	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Emissions per dryer. Maximum lb/hr based on residual oil; TPY based on 2,880 hr/yr on residual oil and 3,240 hr/yr on gas. As of October 31, 2002, TPY will be 147.1 based on 400 hr/yr on residual oil and 5,720 hr/yr on distillate oil.	

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

Potential/Fugitive Emissions

1. Pollutant Emitted: NO_x	2. Total Percent Efficiency of Control:
3. Potential Emissions: 30.8 lb/hour 58.0 tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 to tons/year	
6. Emission Factor: 0.1 lb/MMBtu - gas, 0.367/0.34 lb/MMBtu - fuel oils Reference: See Part II	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters): See Part II for calculations.	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Emissions per dryer. Maximum lb/hr based on residual oil; TPY based on 2,880 hr/yr on residual oil and 3,240 hr/yr on gas. As of October 31, 2002, maximum lb/hr will be 28.9 based on fuel oil; TPY will be 176.9 based on 6,120 hr/yr on fuel oil.	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.1, 0.367, 0.34 lb/MMBtu	4. Equivalent Allowable Emissions: 30.8 lb/hour 58.0 tons/year
5. Method of Compliance (limit to 60 characters): Manufacturer Certification	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Emissions per dryer. Maximum lb/hr based on residual oil; TPY based on 2,880 hr/yr on residual oil and 3,240 hr/yr on gas. As of October 31, 2002, maximum lb/hr will be 28.9 based on fuel oil; TPY will be 176.9 based on 6,120 hr/yr on fuel oil.	

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

Potential/Fugitive Emissions

1. Pollutant Emitted: PM₁₀	2. Total Percent Efficiency of Control:
3. Potential Emissions: 32.4 lb/hour 99.1 tons/year	4. Synthetically Limited? [<input type="checkbox"/>]
5. Range of Estimated Fugitive Emissions: [<input type="checkbox"/>] 1 [<input type="checkbox"/>] 2 [<input type="checkbox"/>] 3 to tons/year	
6. Emission Factor: Rule 62-296.320(4)(a), F.A.C. - process weight table Reference:	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters): After October 31, 2002 15 lb/hr from 403.08725(2) F.S. - See Part II. See Part II for calculations.	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Emissions per dryer. Maximum lb/hr and annual based on all fuels. As of October 31, 2002, Potential Emissions will be 15 lb/hr and 48.9 TPY based on all fuels.	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: VE < 20% Opacity	4. Equivalent Allowable Emissions: 32.4 lb/hour 99.1 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 9	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Emissions per dryer. Maximum lb/hr and annual based on all fuels. As of October 31, 2002, Allowable Emissions will be 15 lb/hr and 48.9 TPY based on all fuels.	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: 100 % Maximum Period of Excess Opacity Allowed: 60 min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment (limit to 200 characters): Rule 62-296.320(4)(b), F.A.C. for 20% opacity; Rule 62-210.700 F.A.C. for excess emissions. As of October 31, 2002, 403.08725(2)(g)1 F.S. for 20% opacity applies.	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)**Supplemental Requirements**

1. Process Flow Diagram [] Attached, Document ID: _____ [X] Not Applicable [] Waiver Requested
2. Fuel Analysis or Specification [] Attached, Document ID: _____ [X] Not Applicable [] Waiver Requested
3. Detailed Description of Control Equipment [] Attached, Document ID: _____ [X] Not Applicable [] Waiver Requested
4. Description of Stack Sampling Facilities [] Attached, Document ID: _____ [X] Not Applicable [] Waiver Requested
5. Compliance Test Report [] Attached, Document ID: _____ [] Previously submitted, Date: _____ [X] Not Applicable
6. Procedures for Startup and Shutdown [] Attached, Document ID: _____ [X] Not Applicable [] Waiver Requested
7. Operation and Maintenance Plan [] Attached, Document ID: _____ [X] Not Applicable [] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: <u>Part II</u> [] Not Applicable
9. Other Information Required by Rule or Statute [] Attached, Document ID: _____ [X] Not Applicable
10. Supplemental Requirements Comment: See Part II.

Additional Supplemental Requirements for Title V Air Operation Permit Applications

<p>11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable</p>
<p>12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable</p>
<p>13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable</p>
<p>14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable</p>
<p>15. Acid Rain Part Application (Hard-copy Required)</p> <p><input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____</p> <p><input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____</p> <p><input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____</p> <p><input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____</p> <p><input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____</p> <p><input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____</p> <p><input type="checkbox"/> Not Applicable</p>

PART II

REPORT

1.0 PROJECT OVERVIEW

Tropicana Products, Inc.'s Fort Pierce Plant is a citrus processing facility located in St. Lucie County (see Figure 1-1). The Fort Pierce Plant was constructed prior to August 1980, and has many existing emission units as defined in Rule 62-210.200. The Fort Pierce Plant currently is authorized by the Florida Department of Environmental Protection (FDEP) to operate under Final Title V Permit 1110004-002-AV. The Fort Pierce Plant consists of 2 existing and 1 planned process steam boilers, 2 citrus peel dryers with waste heat evaporators, citrus feed coolers including pellet mills, 55 existing and 11 planned citrus juice extractors, a package boiler, and various unregulated and insignificant emission units (e.g., storage tanks).

Tropicana is proposing to increase the actual heat input rates on its existing citrus peel dryers by upgrading their current burners. The original burners installed with these dryers in the 1970s had a heat input rating of 84 million BTU per hour (MMBtu/hr). The current Title V permit (Final Permit No. 1110004-002-AV) and the recent air construction and PSD permit for the installation of juice extractors (DEP File No. 111000-003-AC and PSD-FL-303) authorize a maximum heat input of 84 MMBtu/hour. The original burners were upgraded in 1994 to Gordon Piatt "W" burners, which have a heat input capacity of 65 MMBtu/hr. Tropicana desires to upgrade the current burners from an actual heat input capacity of 65 MMBtu/hr to 84 MMBtu/hr for each dryer. While the upgrade will not increase the maximum heat input currently authorized, the change is a modification under the Department's rules defined in 62-210.200 Florida Administrative Code (F.A.C.). Tropicana is seeking an air construction permit of the project under the requirements in 403.08725 Florida Statutes (F.S.) for Citrus Juice Processing Facilities.

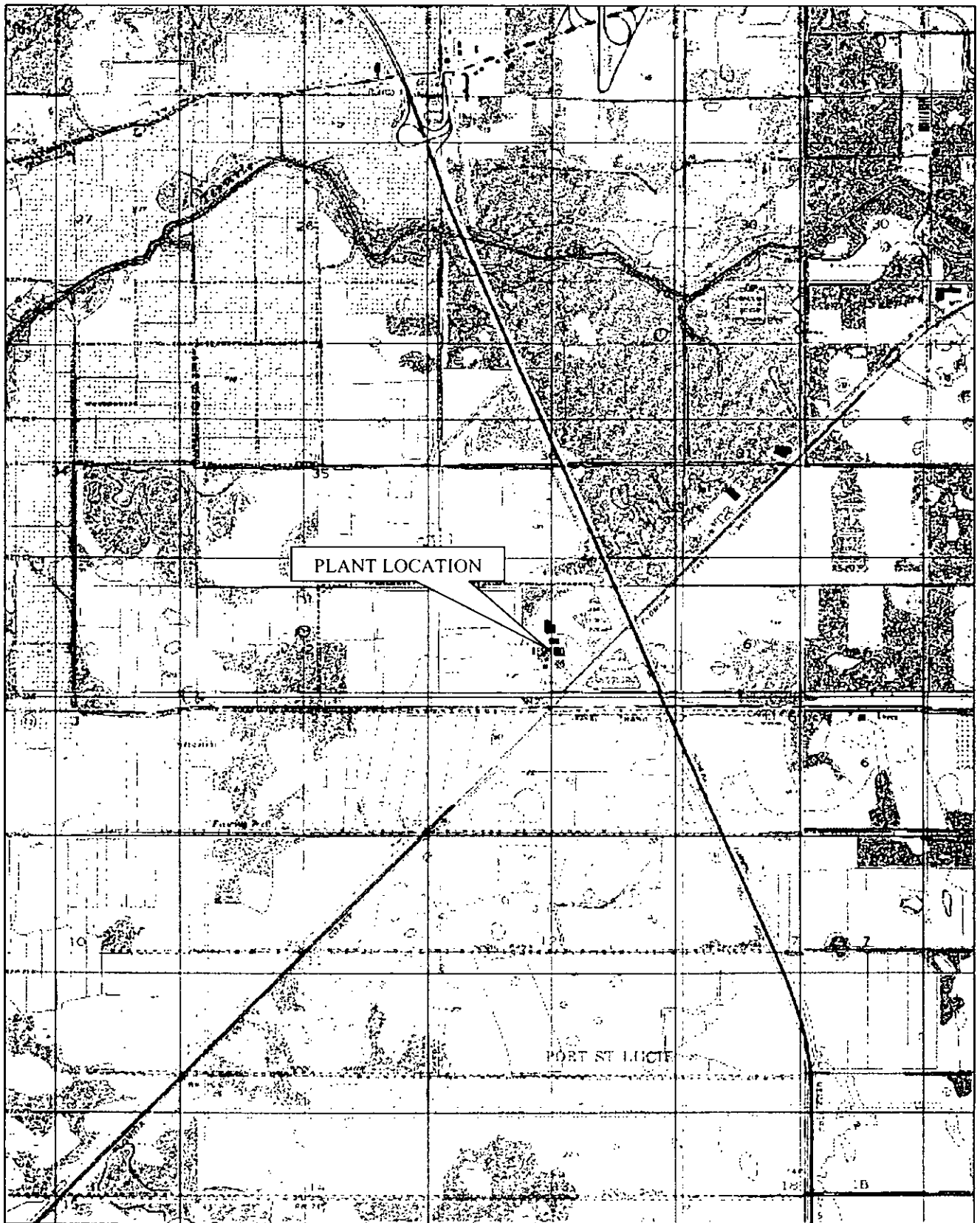


Figure 1-1
Tropicana Products, Inc.
Ft. Pierce Plant

Source: Golder, 2002.



2.0 EXISTING FACILITY AND PROCESS DESCRIPTION

Tropicana's Fort Pierce Plant is a citrus processing facility consisting of fruit unloading facilities, 55 existing and 11 planned juice extractors, 2 existing and 1 process steam boilers, 2 citrus peel dryers with waste heat evaporators, 2 pellet mills and coolers, 1 package boiler, and associated facilities.

The Fort Pierce Plant currently has 55 juice extractors with each extractor having a potential rating of 125 boxes per hour. Permit No. 1110004-003-AC, PSD-FL-303 was issued on March 26, 2001 for the addition of 16 juice extractors, 5 have been installed and 11 are planned. This addition of extractors is currently underway. The construction permit expires on September 20, 2002. The operation of the extractors is dependent on the available fruit and varies over the season. The season is typically from early November through June.

Process Steam Boiler Nos. 1 and 2 have a maximum heat input capacity of 63.4 MMBtu/hr and are authorized to burn natural gas and 2-percent No. 6 fuel oil. Each boiler is authorized to operate up to 8,760 hours per year (hr/yr). The primary fuel is natural gas with fuel oil used as backup. A permit has been issued for the addition of a 99.8 MMBtu/hr process steam boiler (No. 1110004-004-AC, PSD-FL-303A). This boiler is currently in startup.

The pellet mill consists of two pellet mills and coolers. The maximum permitted process rate through the pellet mills is 40 tons per hour (TPH) of dry peel, the total for both mills and coolers. This capacity matches the dry peel output from the dryers. Emissions are controlled with a baghouse. The total maximum operating hours authorized for the pellet mills are 8,760 hr/yr.

The steam package boiler, rated at 17 MMBtu/hr, began operation in 1996 and is authorized to burn only natural gas as fuel. This boiler is allowed to operate 8,760 hr/yr.

The Fort Pierce Plant maintains other facilities, emission units, and pollutant-emitting activities that are considered insignificant under the Department's Rule 62-213.430(6). These activities include various tanks and operations such as maintenance, wastewater treatment, ammonia refrigeration, packaging, etc.

The peel dryers are currently rated at a maximum process input rate of 50 TPH (100,000 lb/hr) of wet peel with a maximum heat input rate of 84.0 MMBtu/hr. The maximum wet peel input rate of

50 TPH has an associated maximum production of dry peel product rate of 20 TPH. Actual wet peel and dry peel rates vary based on the moisture content of the wet peel, as well as the moisture of the dried peel product.

The fuels currently authorized for use in the dryers are natural gas and 2-percent sulfur No. 6 fuel oil. The fuel is natural gas and fuel oil. The exhaust gases from the peel dryers exit through waste heat evaporators, which limit, particulate matter (PM) emissions. The peel dryers are authorized to operate up to 8,760 hr/yr.

3.0 THE PROJECT

Tropicana is proposing to increase the actual heat input capability of the two existing peel dryers by upgrading their current burners. This upgrade will increase the current maximum heat input capacity from 65 MMBtu/hr to that authorized in the Title V permit of 84 MMBtu/hr for each dryer. The project consists of the following:

- Modifying the fan inlet cone by installing a spacer ring on the fan housing scroll inlet cone and properly space the new blower wheel that will then be installed.
- Replacing all sixteen gas spuds in the burner ring with new, larger units for increased input.
- Replacing fuel oil nozzle, tips, and mixers, with larger units, for increased input.

Fan horsepower (hp) will remain the same at 30 hp due to the reuse of the existing motor. Overall burner efficiency will not be adversely affected.

4.0 CURRENT/FUTURE ALLOWABLE EMISSIONS

Table 4-1 presents the current maximum emissions of SO₂, NO_x, PM/PM₁₀, and CO for the citrus peel dryers with waste heat evaporators authorized in the Title V Permit (Permit No. 1110004-002-AV) and in the air construction/PSD permit for the addition of juice extractors (Permit No. 1110004-003-AC, PSD-FL-303). Table 4-1 also presents the emissions of NO_x, SO₂, and PM/PM₁₀ that are applicable to the citrus peel dryers as required by 403.08725 (2) F.S. in October 31, 2002 as a result of the proposed change.

As of October 31, 2002, operation of the dryers will include limiting the residual oil usage with a maximum 1.5 percent sulfur content to 400 hours and employing the use of distillate oil with a maximum 0.5 percent sulfur content to 5,720 hours (at maximum residual oil firing). PM/PM₁₀ emissions as of October 31, 2002, will be limited to 15 lb/hr for all fuels rather than the process weight table.

In addition to the specific emission limits in for PM/PM₁₀, NO_x, and SO₂, the requirements of 403.08725 (2) (c) F.S. include limiting emissions of volatile organic compounds through the use of citrus oil recovery. After October 31, 2002, 50-percent oil recovery is required as determined through a methodology specified in 403.08725 (9) F.S. One year after approval of the legislation by the U.S. Environmental Protection Agency (EPA), 65-percent oil recovery from citrus processing is required. Tropicana intends to comply with the legislation as it relates to VOCs.

Table 4-1. Current and Potential Emissions (PM, CO, NO_x, and SO₂) from Peel Dryers at Tropicana Products, Inc. Fort Pierce Plant

Pollutant	Units	Before October 31, 2002		After October 31, 2002		
		Natural Gas ^a	Residual Oil ^b	Natural Gas ^c	Distillate Oil ^d	Residual Oil ^e
Particulate Matter	lb/hr/dryer	32.4	32.4	15.0	15.0	15.0
	lb/hr/plant	64.8	64.8	30.0	30.0	30.0
	tons/year	198.3	93.3	91.8	91.8	6.0
Carbon Monoxide	lb/hr/dryer	270.0	270.0	270.0	270.0	270.0
	lb/hr/plant	540.0	540.0	540.0	540.0	540.0
	tons/year	1,652.4	777.6	1,652.4	1,652.4	108.0
Nitrogen Oxides	NO _x (lb/mmBtu)	0.1	0.367	0.1	0.34	0.34
	lb/hr/dryer	8.5	31.2	8.5	28.9	28.9
	lb/hr/plant	17.0	62.4	17.0	57.8	57.8
	tons/year	52.0	89.8	52.0	176.9	11.6
Sulfur Dioxide	SO ₂ (lb/mmBtu)	0.003	1.5	0.003	0.5	1.5
	lb/hr/dryer	0.26	127.5	0.26	42.5	127.5
	lb/hr/plant	0.51	255.0	0.51	85.0	255.0
	tons/year	1.56	367.2	1.56	260.1	51.0

^a 6,120 full-load hours based on 255 days and 24-hours/day; PM based on process weight table; CO based on previous stack tests; NO_x based on gas-firing based on AP-42 Emission Factors (Tables 1.4-1); SO₂ based on using 1 grain/100 scf

^b 2,880 full-load hours based on 120 days and 24-hours/day; PM based on process weight table; CO based on previous stack tests; NO_x based on oil-firing based on AP-42 Emission Factors (Tables 1.3-1); SO₂ based on using 1.5% sulfur No. 5 fuel oil and AP-42 Emission Factors

^c 6,120 full-load hours based on 255 days and 24-hours/day; PM and NO_x based on FLL 403.08725 (2); CO based on previous stack tests; SO₂ based on using 1 grain/100 scf

^d 6,120 full-load hours based on 255 days and 24-hours/day; PM and NO_x based on FLL 403.08725 (2); CO based on previous stack tests; SO₂ based on using 0.5% sulfur No. 2 fuel oil and AP-42 Emission Factors

^e 400 full-load hours; PM and NO_x based on FLL 403.08725 (2); CO based on previous stack tests; SO₂ based on using 1.5% sulfur No. 2 fuel oil and AP-42 Emission Factors

5.0 REGULATORY APPLICABILITY

This request is being sought through 403.08725 F.S. and the agreement between the Florida Citrus Processors Association and the Department of Environmental Protection (FDEP). The latter indicates that, changes at citrus processing facilities occurring while the legislation is being reviewed by EPA, would be processed as a standard air construction permit. Therefore, an air construction permit is being submitted. Requirements of Prevention of Significant Deterioration (PSD) in Section 62-212.400 F.A.C. would not be reviewed at this time.