

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
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Bureau of Air Monitoring
& Mobile Sources

0137555

July 6, 2001

Florida Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road, MS #5505
Tallahassee, FL 32399-2400

Attention: Mr. Joe Kahn, P.E.

**SUBJECT: RELOCATED PEEL DRYER AND NEW PELLET MILL/COOLER
SOUTHERN GARDENS CITRUS PROCESSING CORPORATION**

Dear Mr. Kahn:

On behalf of Southern Gardens Citrus Processing Corporation, please find enclosed four (4) copies of an air construction permit application to relocate an existing citrus peel dryer/waste heat evaporator to the existing Southern Gardens citrus processing facility located near Clewiston, Florida. The application also includes a new pellet mill and cooler to support the additional peel dryer and raising the facility production cap to 22.5 million boxes per year of fruit. Although the application is being submitted under the citrus industry legislation, the project is designed to not trigger prevention of significant deterioration (PSD) new source review requirements.

One copy of the application is also being submitted to the DEP South District Office in Fort Myers. Please feel free to contact me if you have questions concerning this application.

Sincerely,

GOLDER ASSOCIATES, INC

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

DB/jkw

cc: S. Watson
O. Rodriguez
D. Pridgen
W. Wehrum

P:\Projects\2001\0137555 SGCP C Peel Dryer\4\4.1\070601.doc

**AIR CONSTRUCTION PERMIT APPLICATION
FOR PEEL DRYER/WASTE HEAT EVAPORATOR
AND PELLET COOLER ADDITION**

**SOUTHERN GARDENS
CITRUS PROCESSING CORPORATION**

CLEWISTON, FLORIDA

Prepared For:

**Southern Gardens Citrus Processing Corporation
755 C.R. 833, P.O. Box 130
Clewiston, Florida 33440**

Prepared By:

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

**July 2001
0137555**

DISTRIBUTION:

**4 Copies - FDEP Tallahassee
1 Copy - FDEP Ft. Myers
2 Copies - Southern Gardens
2 Copies - Golder Associates Inc.**



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: Southern Gardens Citrus Processing Corp.	
2. Site Name: Southern Gardens Citrus Processing Corp.	
3. Facility Identification Number: 0510015 [] Unknown	
4. Facility Location: Street Address or Other Locator: 755 C.R. 833; P.O. Box 130 City: Clewiston County: Hendry Zip Code: 33440	
5. Relocatable Facility? [] Yes [X] No	6. Existing Permitted Facility? [X] Yes [] No

Application Contact

1. Name and Title of Application Contact: Derek Pridgen, Environmental Engineer	
2. Application Contact Mailing Address: Organization/Firm: Southern Gardens Citrus Processing Street Address: 755 CR 833; P.O. Box 130 City: Clewiston State: FL Zip Code: 33440	
3. Application Contact Telephone Numbers: Telephone: (863) 983 - 3030 Fax: (863) 983 - 3060	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	7-9-01
2. Permit Number:	0510015-008-AC
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

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: Tristan Chapman, Vice President, General Manager
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Southern Gardens Citrus Processing Corp. Street Address: 755 CR 833 City: Clewiston State: FL Zip Code: 33440
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (863) 983 - 3030 Fax: (863) 983 - 3060
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 <u>1/5/01</u> _____ Date

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: David A. Buff Registration Number: 19011
2. Professional Engineer Mailing Address: Organization/Firm: Golder Associates Inc. Street Address: 6241 NW 23rd Street, Suite 500 City: Gainesville State: FL Zip Code: 32653-1500
3. Professional Engineer Telephone Numbers: Telephone: (352) 336 - 5600 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 [], 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.

David A. Beff

Signature

7/6/81

Date

(seal)

* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
	No. 2 Peel Dryer/Waste Heat Evaporator	AC1B	
	No. 4 Pellet Cooler	AC1B	

Application Processing Fee

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

Construction/Modification Information

1. Description of Proposed Project or Alterations:

This application is for the addition of a peel dryer/waste heat evaporator and a pellet mill and cooler. The peel dryer/waste heat evaporator is existing equipment being moved from another citrus plant.

2. Projected or Actual Date of Commencement of Construction: **1 Sep 2001**

3. Projected Date of Completion of Construction: **1 Jun 2002**

Application Comment

[Empty box for Application Comment]

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: 17 East (km): 487.5 North (km): 2958.0			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): 26 / 44 / 30 Longitude (DD/MM/SS): 81 / 7 / 30			
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 20	6. Facility SIC(s): 2037
7. Facility Comment (limit to 500 characters):			

Facility Contact

1. Name and Title of Facility Contact: Derek Pridgen, Environmental Engineer			
2. Facility Contact Mailing Address: Organization/Firm: Southern Gardens Citrus Processing Street Address: P.O. Box 130 City: Clewiston State: FL Zip Code: 33440			
3. Facility Contact Telephone Numbers: Telephone: (863) 983 - 3030 Fax: (863) 983 - 3060			

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 checked="" 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

All Federal regulatory citations reflect the rule language as of June 2000.	
All State regulatory citations reflect the rule language as of June 2000.	
Only those rules, regulations, and ordinances specifically identified herein apply to this facility.	
See Attached Title V core list, effective date 3/25/97, except for 40CFR82.	
Citrus Industry Legislation (FLL 403.08725).	

Title V Core List

Effective:03/25/97

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

Requirements that apply to emissions units must be identified in Subsection III.B. of DEP Form No. 62-210.900(1), Application for Air Permit - Long Form.

Applicants must identify all "applicable requirements" in order to claim the "permit shield" described at Rule 62-213.460, F.A.C.]

Federal: (description)

40 CFR 61: National Emission Standards for Hazardous Air Pollutants (NESHAP)
40 CFR 61, Subpart M: NESHAP for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.
40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).
40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: (description)

CHAPTER 62-4, F.A.C.: PERMITS, effective 10-16-95

62-4.030, F.A.C.: General Prohibition.
62-4.040, F.A.C.: Exemptions.
62-4.050, F.A.C.: Procedure to Obtain Permits; Application
62-4.060, F.A.C.: Consultation.
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
62-4.080, F.A.C.: Modification of Permit Conditions.
62-4.090, F.A.C.: Renewals.
62-4.100, F.A.C.: Suspension and Revocation.
62-4.110, F.A.C.: Financial Responsibility.
62-4.120, F.A.C.: Transfer of Permits.
62-4.130, F.A.C.: Plant Operation - Problems.
62-4.150, F.A.C.: Review
62-4.160, F.A.C.: Permit Conditions.
62-4.210, F.A.C.: Construction Permits.
62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-103, F.A.C.: RULES OF ADMINISTRATIVE PROCEDURE, effective 12-31-95

62-103.150, F.A.C.: Public Notice of Application and Proposed Agency Action.
62-103.155, F.A.C.: Petition for Administrative Hearing; Waiver of Right to
Administrative Proceeding

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS,
effective 03-21-96

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

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

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

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

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

62-210.300(3)(b), F.A.C.: Temporary Exemption.

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

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

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

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

62-210.360, F.A.C.: Administrative Permit Corrections.

62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.

62-210.650, F.A.C.: Circumvention.

62-210.900, F.A.C.: Forms and Instructions.

62-210.900(1) Application for Air Permit - Long Form, Form and Instructions.

62-210.900(5) Annual Operating Report for Air Pollutant Emitting Facility, Form
and Instructions.

**CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR
POLLUTION, effective 03-20-96**

62-213.205, F.A.C.: Annual Emissions Fee.

62-213.400, F.A.C.: Permits and Permit Revisions Required.

62-213.410, F.A.C.: Changes Without Permit Revision.

62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.

62-213.420, F.A.C.: Permit Applications.

62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.

62-213.440, F.A.C.: Permit Content.

62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.

62-213.900(1) Major Air Pollution Source Annual Emissions Fee Form, Form and
Instructions.

Title V Core List

Effective:03/25/97

CHAPTER 62-256, F.A.C.: OPEN BURNING AND FROST PROTECTION FIRES, effective 11-30-94

CHAPTER 62-257, F.A.C.: ASBESTOS NOTIFICATION AND FEE, effective 03/24/96

CHAPTER 62-281, F.A.C.: MOTOR VEHICLE AIR CONDITIONING REFRIGERANT RECOVERY AND RECYCLING, effective 03-07-96

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-13-96

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

62-296.320(3), F.A.C.: Industrial, Commercial, and Municipal Open Burning Prohibited

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

B. FACILITY POLLUTANTS

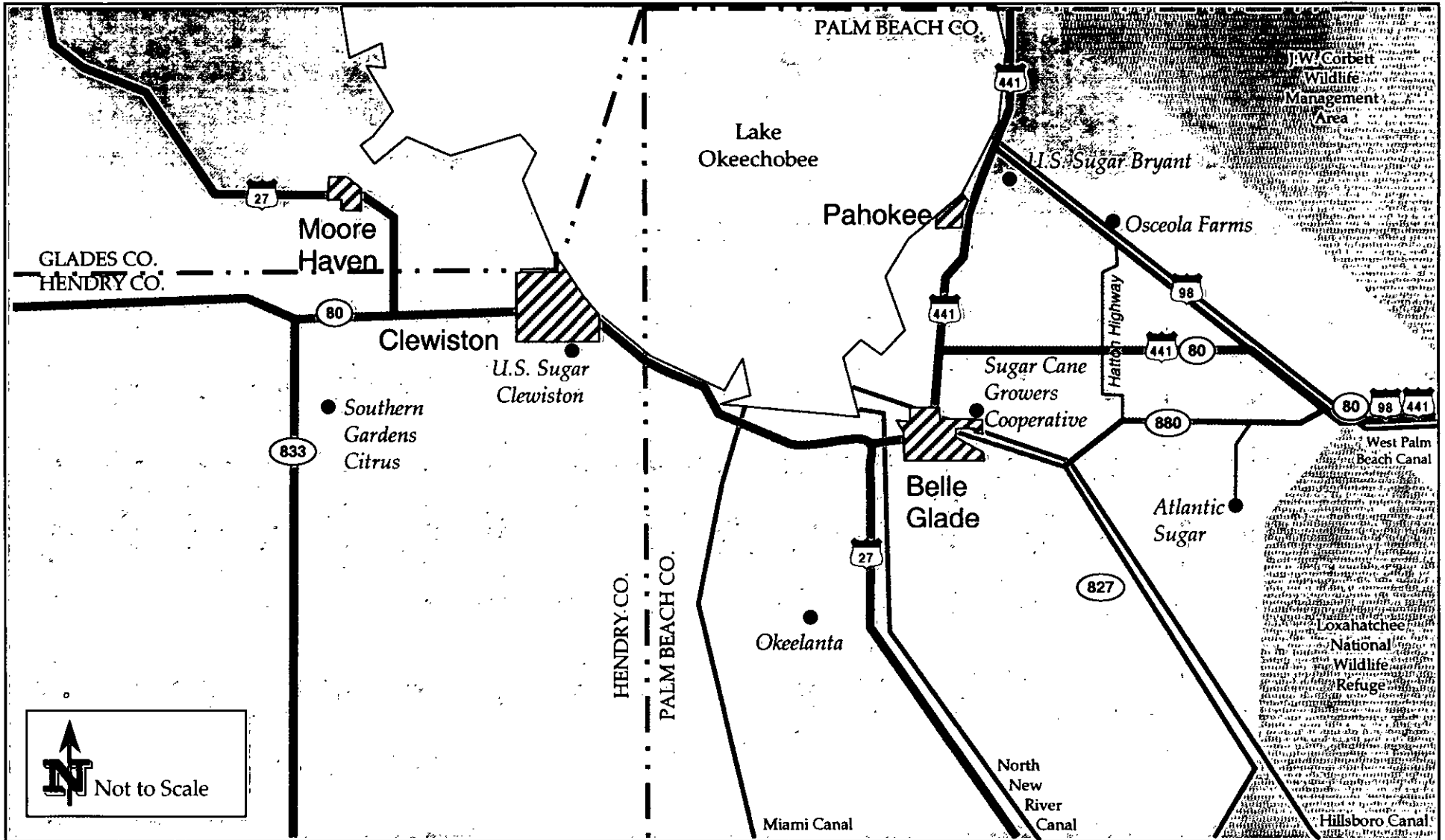
List of Pollutants Emitted

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

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

ATTACHMENT SG-FE-1
AREA MAP



Attachment SG-FE-1
Location of Southern Gardens Citrus Processing Corporation

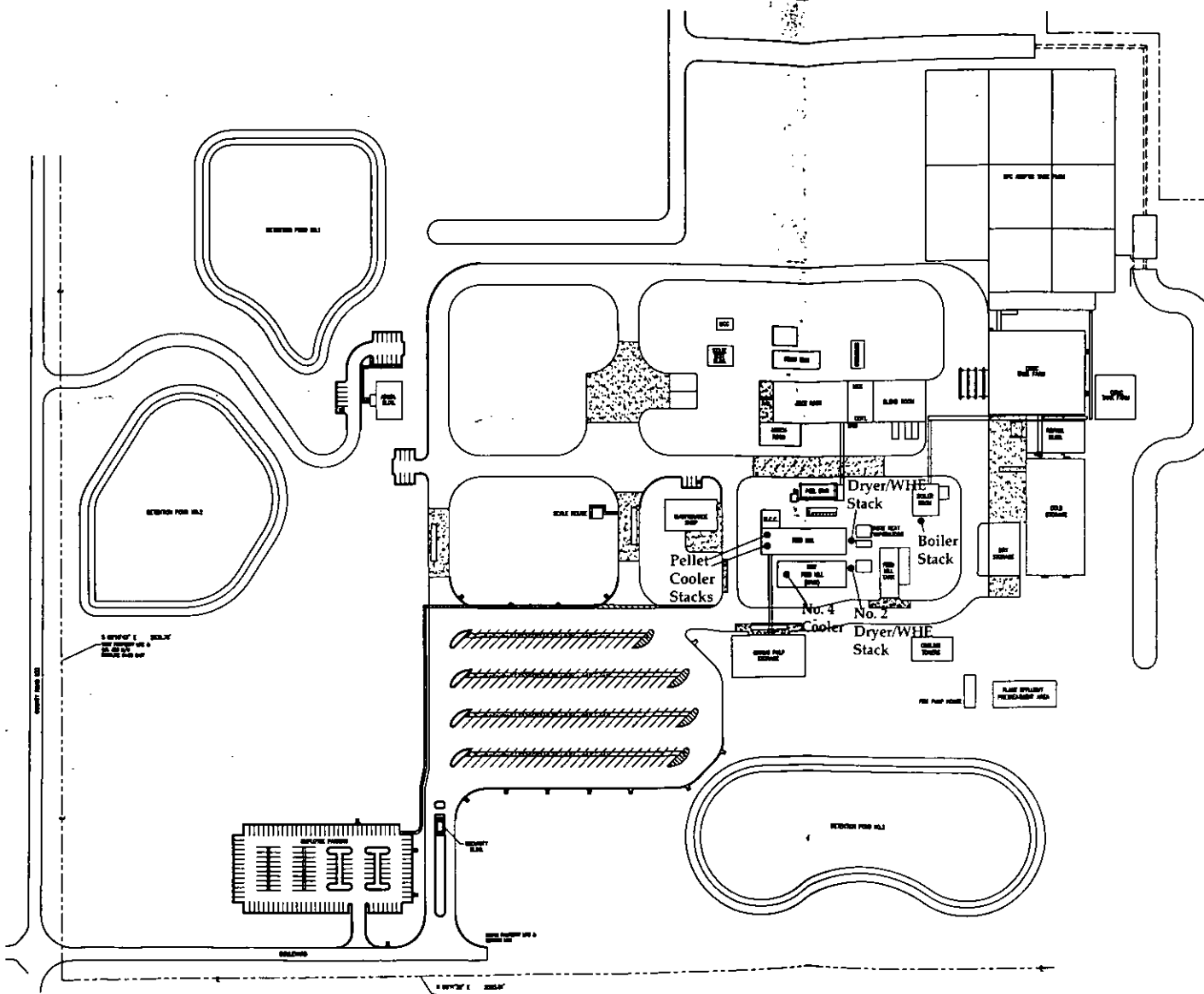
Source: Golder Associates Inc., 2001



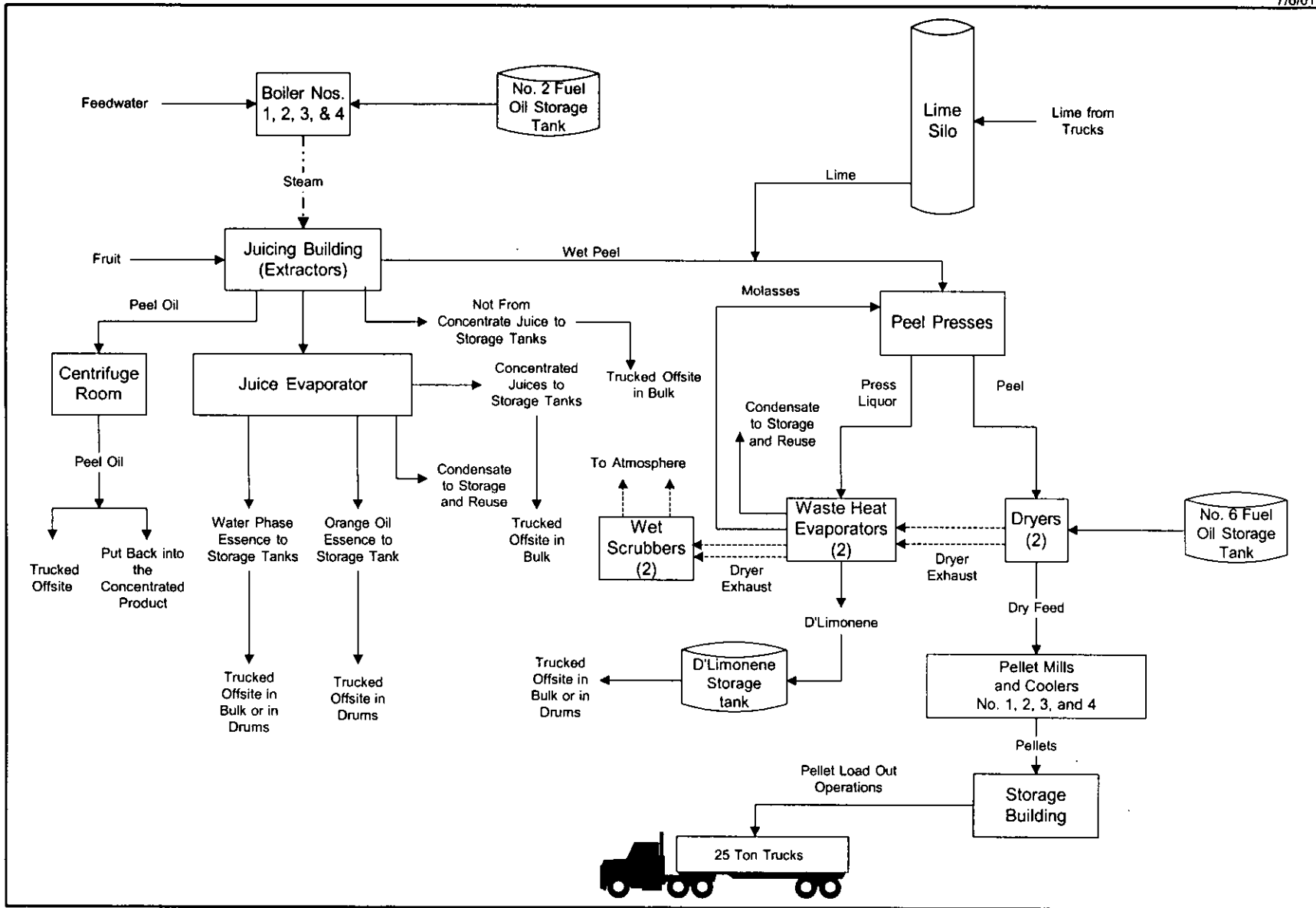
ATTACHMENT SG-FE-2
FACILITY PLOT PLAN

Legend

- Stack Location



**ATTACHMENT SG-FE-3
PROCESS FLOW DIAGRAM**



Attachment SG-FE-3
 Southern Gardens Citrus Processing Corporation
 Process Flow Diagram with New Equipment
 Clewiston, Florida

Process Area: Overall Plant Process
 Filename: SG-FIGS.VSD
 Latest Revision Date: 7/6/01

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



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): No. 2 Peel Dryer and Waste Heat Evaporator			
4. Emissions Unit Identification Number: ID:		<input checked="" type="checkbox"/> No ID <input type="checkbox"/> ID Unknown	
5. Emissions Unit Status Code: C	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20	8. Acid Rain Unit? <input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			
4-Digit SIC code = 2037. The emission unit consists of a 135,000 lb/hr waste heat evaporator and a 60,000 lb/hr water evaporation dryer fired with fuel oil containing a maximum sulfur content of 1.5 percent by weight.			

Emissions Unit Control Equipment

<p>1. Control Equipment/Method Description (Limit to 200 characters per device or method):</p> <p>Wet scrubber – medium efficiency</p>
<p>2. Control Device or Method Code(s): 2 </p>

Emissions Unit Details

<p>1. Package Unit: Manufacturer: _____ Model Number: _____</p>						
<p>2. Generator Nameplate Rating: _____ MW</p>						
<p>3. Incinerator Information:</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: right; padding-right: 20px;">Dwell Temperature:</td> <td style="text-align: right;">°F</td> </tr> <tr> <td style="text-align: right; padding-right: 20px;">Dwell Time:</td> <td style="text-align: right;">seconds</td> </tr> <tr> <td style="text-align: right; padding-right: 20px;">Incinerator Afterburner Temperature:</td> <td style="text-align: right;">°F</td> </tr> </table>	Dwell Temperature:	°F	Dwell Time:	seconds	Incinerator Afterburner Temperature:	°F
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:		
4. Maximum Production Rate:	18.5 TPH BDP	
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	36 weeks/year	6,000 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		
	<p>BDP = Bone dry peel</p> <p>1. Max Prod. Rate represents dried citrus peel at 0% moisture.</p> <p>2. Process or throughput varies depending upon moisture content of peel.</p> <p>See Attachment SG-EU1-B6.</p>	

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

List of Applicable Regulations

62-296.320(4)(a), F.A.C. Process Weight Table
62-296.320(4)(b), F.A.C. General Visible Emissions Standards
62-297.310, F.A.C. General Compliance Test Requirements
62-297.401(5), F.A.C. EPA Test Method 5
62-297.401(6), F.A.C. EPA Test Method 6
62-297.401(9), F.A.C. EPA Test Method 9
62-297.440(1)(b), F.A.C. Supplementary Test Procedures – ASTM D 396-76
FLL 403.08725(1) Compliance Requirements
FLL 403.08725(2)(c) Permitted Emission Limits
FLL 403.08725(2)(d) Permitted Emission Limits
FLL 403.08725(2)(e)1. Permitted Emission Limits
FLL 403.08725(2)(f)1. Permitted Emission Limits
FLL 403.08725(2)(g)1. Permitted Emission Limits
FLL 403.08725(3)(a) Emissions Determination and Reporting
FLL 403.08725(3)(b) Emissions Determination and Reporting
FLL 403.08725(3)(d) Emissions Determination and Reporting
FLL 403.08725(3)(h) Emissions Determination and Reporting
FLL 403.08725(3)(i)1. Emissions Determination and Reporting
FLL 403.08725(3)(i)2. Emissions Determination and Reporting
FLL 403.08725(3)(i)3. Emissions Determination and Reporting
FLL 403.08725(3)(j) Emissions Determination and Reporting
FLL 403.08725(3)(k) Emissions Determination and Reporting
FLL 403.08725(4)(a)1. Emissions Trading

**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? CFM2		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 125 feet	7. Exit Diameter: 5.7 feet	
8. Exit Temperature: 175 °F	9. Actual Volumetric Flow Rate: 37,000 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 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Food and agricultural fuel fired equipment, process heaters, residual oil		
2. Source Classification Code (SCC): 3-02-900-02		3. SCC Units: Thousand Gallons Burned
4. Maximum Hourly Rate: 0.560	5. Maximum Annual Rate: 3,452	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 No. 6 fuel oil (1.5% sulfur).		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Food and agriculture, Citrate Feed Manufacture: Handling and Transferring		
2. Source Classification Code (SCC): 3-02-008-32		3. SCC Units: Tons of Product
4. Maximum Hourly Rate: 18.5	5. Maximum Annual Rate: 92,250	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Maximum and annual rates refer to bone dry peel.		

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

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Food and Agriculture; Other Not Specified; Other Not Classified		
2. Source Classification Code (SCC): 3-02-999-99		3. SCC Units: Tons Produced
4. Maximum Hourly Rate: 11.95	5. Maximum Annual Rate: 80,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): SCC units refer to tons of molasses produced. Hourly and annual rates refer to molasses production.		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

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	002		EL
PM ₁₀	002		EL
SO ₂			EL
NO _x			EL
CO			NS
VOC			NS
H115			NS
HAPs			NS

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: 32.05 lb/hour 96.15 tons/year		4. Synthetically Limited? [<input checked="" type="checkbox"/>]	
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year			
6. Emission Factor: Reference: See Att. SG-EU1-G8		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): See Attachment SG-EU1-G8. Emission factor based on Process Weight Formula 62-296.320(4)(a) F.A.C. $E=17.31(P)^{0.16}$ where P = 47 TPH; E = 32.05 lb/hr			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Hours of operation are limited to 6,000 hr/yr.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: RULE		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions: 32.05 lb/hour 96.15 tons/year	
5. Method of Compliance (limit to 60 characters): EPA Method 5			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Based on Process Weight Formula 62-296.320(4)(a) F.A.C.			

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: 15 lb/hour		4. Synthetically Limited? [<input checked="" type="checkbox"/>] 45 tons/year	
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year			
6. Emission Factor: 15 lb/hr Reference: FLL 403.08725(2)(e)1.		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): See Attachment SG-EU1-G8			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Hours of operation are limited to 6,000 hr/yr.			

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: 15 lb/hr		4. Equivalent Allowable Emissions: 15 lb/hour 45 tons/year	
5. Method of Compliance (limit to 60 characters): EPA Method 5			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Based on PM₁₀ limit for citrus peel dryers from FLL 403.08725(2)(e)1.			

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: 42 lb/hour 126 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> [X]	
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year			
6. Emission Factor: 0.5 lb/MMBtu Reference: See Attachment SG-EU1-G8		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): See Attachment SG-EU1-G8			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

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: 0.5 lb/MMBtu		4. Equivalent Allowable Emissions: 42 lb/hour 126 tons/year	
5. Method of Compliance (limit to 60 characters): EPA Method 5			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Based on permit condition for existing peel dryer. Emissions related to No. 6 fuel oil combustion.			

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: 28.6 lb/hour		4. Synthetically Limited? <input checked="" type="checkbox"/> [X]	
		85.7 tons/year	
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year			
6. Emission Factor: 0.34 lb/MMBtu Reference: FLL 403.08725(2)(f)1.b.		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): See Attachment SG-EU1-G8			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Hours of operation are limited to 6,000 hr/yr.			

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: 0.34 lb/MMBtu		4. Equivalent Allowable Emissions: 28.6 lb/hour 85.7 tons/year	
5. Method of Compliance (limit to 60 characters): EPA Method 7E			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Based on nitrogen oxide emission for citrus peel dryers in FLL 403.08725(2)(f)1.b.			

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

Potential/Fugitive Emissions

1. Pollutant Emitted: CO	2. Total Percent Efficiency of Control:
3. Potential Emissions: 1,522.3 lb/hour 2,906.3 tons/year	4. Synthetically Limited? [<input checked="" type="checkbox"/>]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 82.51 lb/ton BDP Reference: See Att. SG-EU1-G8	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters): See Attachment SG-EU1-G8	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Hours of operation are limited to 6,000 hr/yr.	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

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

Potential/Fugitive Emissions

1. Pollutant Emitted: VOC	2. Total Percent Efficiency of Control:
3. Potential Emissions: 951.4 lb/hour 1,816.5 tons/year	4. Synthetically Limited? [<input checked="" type="checkbox"/>]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 51.57 lb/ton BDP Reference: See Att. SG-EU1-G8	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters): See Attachment SG-EU1-G8	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Hours of operation are limited to 6,000 hr/yr.	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

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: % Maximum Period of Excess Opacity Allowed: 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. and FLL 403.08725(2)(g)1.	

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

Continuous Monitoring System: Continuous Monitor 1 of 2

1. Parameter Code: FLOW	2. Pollutant(s): NO_x
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information: Manufacturer: Custom Design Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): Measures total water flow to the scrubber nozzles to insure proper operation of the scrubber.	

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

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [] Rule [] Other
3. Requested Allowable Opacity: Normal Conditions: _____ % Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

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

Continuous Monitoring System: Continuous Monitor 2 of 2

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	[] Rule [X] 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): Monitors oil usage.	

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

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: <u>SG-EU1-J1</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input checked="" type="checkbox"/> Attached, Document ID: <u>SG-EU1-J2</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: <u>SG-EU1-J3</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A</u> <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

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

ATTACHMENT SG-EU1-B6
OPERATING CAPACITY/SCHEDULE COMMENT

ATTACHMENT SG-EU1-B6**Operating Capacity/Schedule Comment**

The peel dryer is designed for 60,000 lb/hr water evaporation rate. The process input rate and production rate are dependent upon the moisture content of the peel going into the dryer as well as the dried peel production.

**ATTACHMENT SG-EU1-G8
CALCULATION OF EMISSIONS**

Attachment SG-EU1-G8. Future Potential Emissions for New No. 2 Peel Dryer/WHE at Southern Gardens Citrus Processing Corporation

Regulated Pollutant	Emission Factor	Reference	Short-Term Activity Factor ^a	Maximum Hourly Emissions (lb/hr)	Annual Activity Factor ^b	Annual Emissions (TPY)
Particulate (PM)	32.05 lb/hr	1	--	32.05	6,000 hr/yr	96.15
Particulate (PM ₁₀)	15 lb/hr	2	--	15	6,000 hr/yr	45.0
Sulfur dioxide	0.5 lb/MMBtu	3	84.0 MMBtu/hr	42.0	504,000 MMBtu/yr	126.0
Nitrogen oxides	0.34 lb/MMBtu	4	84.0 MMBtu/hr	28.6	504,000 MMBtu/yr	85.7
Carbon monoxide						
Early/Mids	58.05 lb/ton BDP	5	18.5 tons/hr BDP	1,071.1	--	--
Valencia	82.51 lb/ton BDP	5	18.5 tons/hr BDP	1,522.3	--	--
Annual Average	63.01 lb/ton BDP	5	--	--	92,250 tons/yr BDP	2,906.3
VOC						
Early/Mids	36.28 lb/ton BDP	6	18.5 tons/hr BDP	669.4	--	--
Valencia	51.57 lb/ton BDP	6	18.5 tons/hr BDP	951.4	--	--
Annual Average	39.38 lb/ton BDP	6	--	--	92,250 tons/yr BDP	1,816.5

Footnotes:

^a Proposed maximum heat input rate and throughput rate.

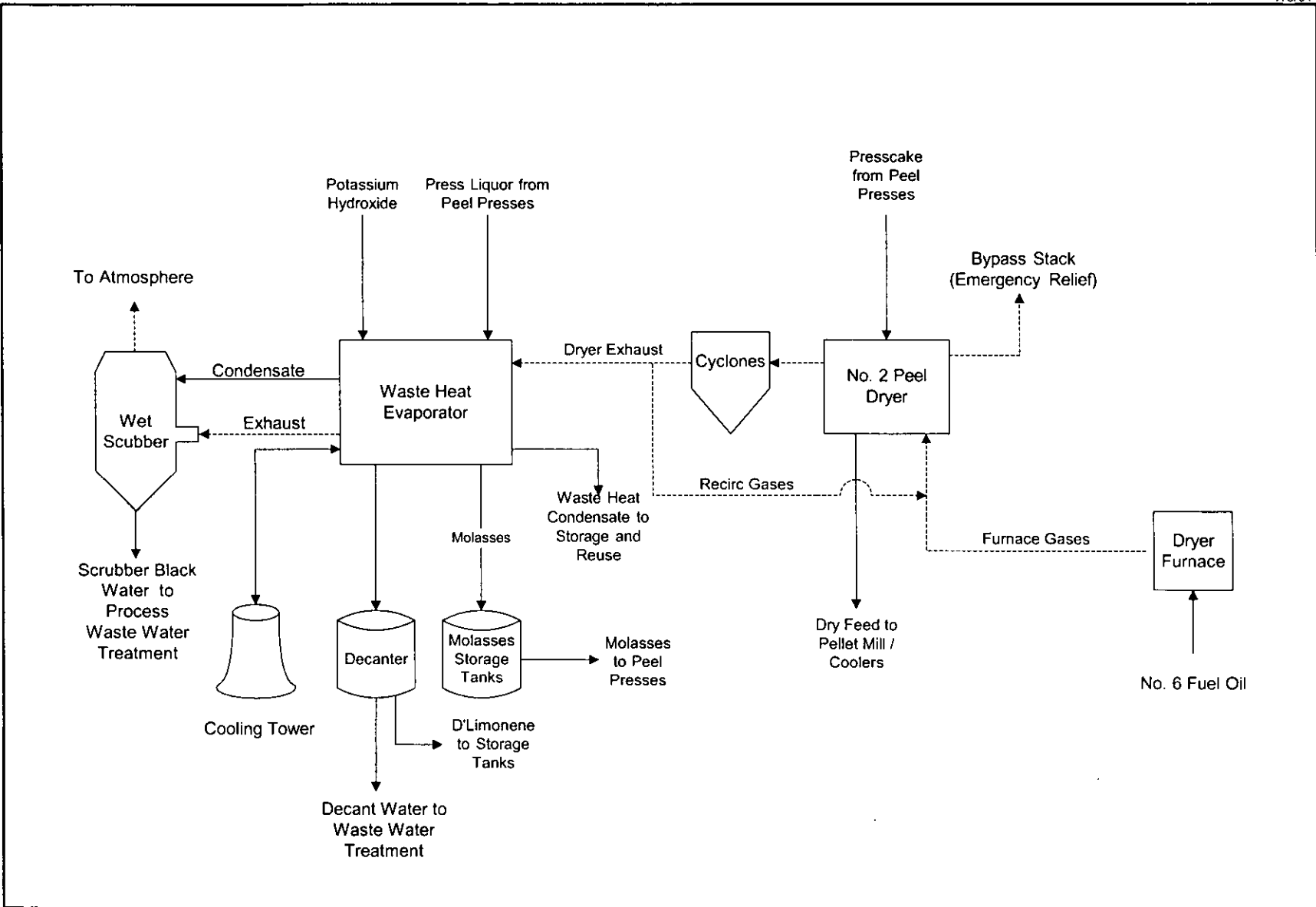
^b Based on 84 MMBtu/hr and 6,000 hours per year or 22.5 million boxes per year and 8.2 lb BDP/box.

BDP = bone dry peel

References:

- Maximum emission rate based on Process Weight Formula, $E = 17.31E^{0.16}$, where E is in lb/hr and P = 47 TPY throughput rate [62-296.320(4)(a), F.A.C.].
- Particulate matter (PM₁₀) emission factor for citrus peel dryers from FLL 403.08725(2)(e)1.
- Based on emission limit of existing peel dryer/WHE. This dryer will be able to meet this limit since it will burn a fuel oil with a lower sulfur content than the existing peel dryer/WHE (fuel oil combustion is the primary source of SO₂ emissions from this emission unit).
- Nitrogen oxide emission factors for sources that fire fuel oil from FLL 403.08725(2)(f)1.b.
- Based on 160% of VOC emissions, derived from stack test data.
- Emission factor based on General FCPA Emission Factor, maximum production rates and:
 Early/Mids -- 0.4275 lb oil/box and a hourly minimum of 50% oil recovery (51.67% overall oil recovered/juice/sewered).
 Valencia -- 0.6076 lb oil/box and a hourly minimum of 50% oil recovery (51.67% overall oil recovered/juice/sewered).
 Annual Average - assumes a 50/50 mix of Valencia and Early/Mids and an annual average of 55% oil recovery (56.67% overall oil recovered/juice/sewered).
 Based on 90 lb fruit/box; 8.2 lb BDP/box; 72% of oil to dryer emitted from dryer stack.

**ATTACHMENT SG-EU1-J1
PROCESS FLOW DIAGRAM**



Attachment SG-EU1-J1
 Southern Gardens Citrus Processing Corporation
 Process Flow Diagram
 Clewiston, Florida

Process Area: No. 2 Peel Dryer/Waste Heat Evaporator
 Filename: SG-FIGS.VSD
 Latest Revision Date: 7/6/01

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



ATTACHMENT SG-EU1-J2
FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT SG-EU1-J2**Fuel Analysis Specification for Southern Gardens Citrus Processing Corporation
Peel Dryer/Waste Heat Evaporator**

Parameter	No. 6 Fuel Oil
Density (lb/gal)	7.94
Heating Value (Btu/lb)	18,400
Heating Value (Btu/gal)	150,000 - 152,000
Nitrogen (%)	0
Sulfur (%)	1.5 Max
Ash/Inorganic (%)	0

ATTACHMENT SG-EU1-J3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Attachment SG-EU1-J3

Southern Gardens Citrus Processing Corporation
Peel Dryer/Waste Heat Evaporator Wet Collection Control Equipment Parameters *

Outlet Gas Temp (F)	175		
Outlet Gas Flow Rate (ACFM)	37,000		
Pressure Drop Across Device (inches of H2O) Min/Max	4 / 7		
Scrubbant Flow Rate (gal/min) - Normal	>200		
Scrubbant Supply Pressure (psi) - Normal/Maximum	40 / 32		
Average Scrubbant pH	4		
Scrubbant Make-up Rate (specify units)	70 gpm		
Scrubber Inlet Loading Rate (lb/hr) of PM	641		
Pollutants	Inlet Loading lb/hr	Outlet Loading lb/hr	Control Efficiency (%)
Particulate Matter	641	32.05	95

Footnotes:

* Based on parameters for similar equipment controlling emissions at the existing Citrus Feed Mill.

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): No. 4 Pellet Cooler			
4. Emissions Unit Identification Number: ID:			<input checked="" type="checkbox"/> No ID <input type="checkbox"/> ID Unknown
5. Emissions Unit Status Code: C	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20	8. Acid Rain Unit? <input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters) 4-Digit SIC code = 2037. This emissions unit consists of a new pellet mill and the No. 4 Pellet Cooler.			

Emissions Unit Control Equipment

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

Cyclones are an integral part of the process and are not considered as control equipment.

2. Control Device or Method Code(s):

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:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	46,000 lb/hr	
4. Maximum Production Rate:	46,000 lb/hr	
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	36 weeks/year	6,000 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	<p>Maximum rates relate to total pounds of citrus peel.</p>	

**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? CFM2		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 40 feet	7. Exit Diameter: 2 feet	
8. Exit Temperature: 110 °F	9. Actual Volumetric Flow Rate: 13,900 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): Exit stack of cyclone.			

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

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Food and Agriculture, Feed Manufacture, Pellet Cooler		
2. Source Classification Code (SCC): 3-02-008-16		3. SCC Units: Tons Processed
4. Maximum Hourly Rate: 23	5. Maximum Annual Rate: 138,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 0
10. Segment Comment (limit to 200 characters): Hourly and annual rates refer to total dry citrus peel through cooler.		

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

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: 5.0 lb/hour 15.0 tons/year	4. Synthetically Limited? <input checked="" type="checkbox"/>
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 5.0 lb/hr Reference: See Att. SG-EU2-G8	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters): See Attachment SG-EU2-G8	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Hours of operation are limited to 6,000 hr/yr.	

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: 5.0 lb/hr	4. Equivalent Allowable Emissions: 5.0 lb/hour 15.0 tons/year
5. Method of Compliance (limit to 60 characters): VE < 5% opacity	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): As per FLL 403.08725(3)(i)1., compliance tests are waived as long as compliance with visible emission limit is shown. Limit set forth in FLL 403.08725(2)(e)2.	

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: 5.0 lb/hour 15.0 tons/year	4. Synthetically Limited? [<input checked="" type="checkbox"/>]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 5.0 lb/hr Reference: FLL 403.08725(2)(e)2.	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters): See Attachment SG-EU2-G8	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Proposed hours of operation are 6,000 hr/yr.	

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: 5.0 lb/hr	4. Equivalent Allowable Emissions: 5.0 lb/hour 15.0 tons/year
5. Method of Compliance (limit to 60 characters): VE < 5% opacity	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): As per FLL 403.08725(3)(l)1., compliance tests are waived as long as compliance with visible emission limit is shown. Limit set forth in FLL 403.08725(2)(e)2.	

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

Potential/Fugitive Emissions

1. Pollutant Emitted: VOC	2. Total Percent Efficiency of Control:
3. Potential Emissions: 119.3 lb/hour 227.1 tons/year	4. Synthetically Limited? [<input checked="" type="checkbox"/>]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 6.45 lb/ton BDP Reference: See Att. SG-EU2-G8	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters): See Attachment SG-EU2-G8	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): BDP = bone dry peel.	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

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: VE05	2. Basis for Allowable Opacity: [] Rule [X] Other
3. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment (limit to 200 characters): FLL 403.08725(2)(g)2.	

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:	[] Rule [] 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 <input checked="" type="checkbox"/> Attached, Document ID: <u>SG-EU2-J1</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A</u> <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

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

**ATTACHMENT SG-EU2-G8
CALCULATION OF EMISSIONS**

Attachment SG-EU2-G8. Future Potential Emissions for New No. 4 Pellet Cooler at Southern Gardens Citrus Processing Corporation

Regulated Pollutant	Emission Factor	Reference	Short-Term Activity Factor ^a	Maximum Hourly Emissions (lb/hr)	Annual Activity Factor ^b	Annual Emissions (TPY)
Particulate (PM)	5.0 lb/hr	1	--	5.0	6,000 hr/yr	15.0
Particulate (PM ₁₀)	5.0 lb/hr	2	--	5.0	6,000 hr/yr	15.0
VOC						
Early/Mids	4.54 lb/ton BDP	3	18.5 TPH BDP	83.9	--	--
Valencia	6.45 lb/ton BDP	3	18.5 TPH BDP	119.3	--	--
Annual Average	4.92 lb/ton BDP	3	--	--	92,250 TPY BDP	227.1

Footnotes:

^a Based on maximum throughput rate.

^b Based on 22.5 million boxes of fruit per year, 8.2 lb bone dry peel per box and 6,000 hr/yr.

References:

1. Based on requested allowable emission rate.

2. Particulate matter (PM₁₀) limit for pellet coolers from FLL 403.08725(2)(e)2.

3. Emissions based on General FCPA Emission Factor, proposed maximum production rates and:

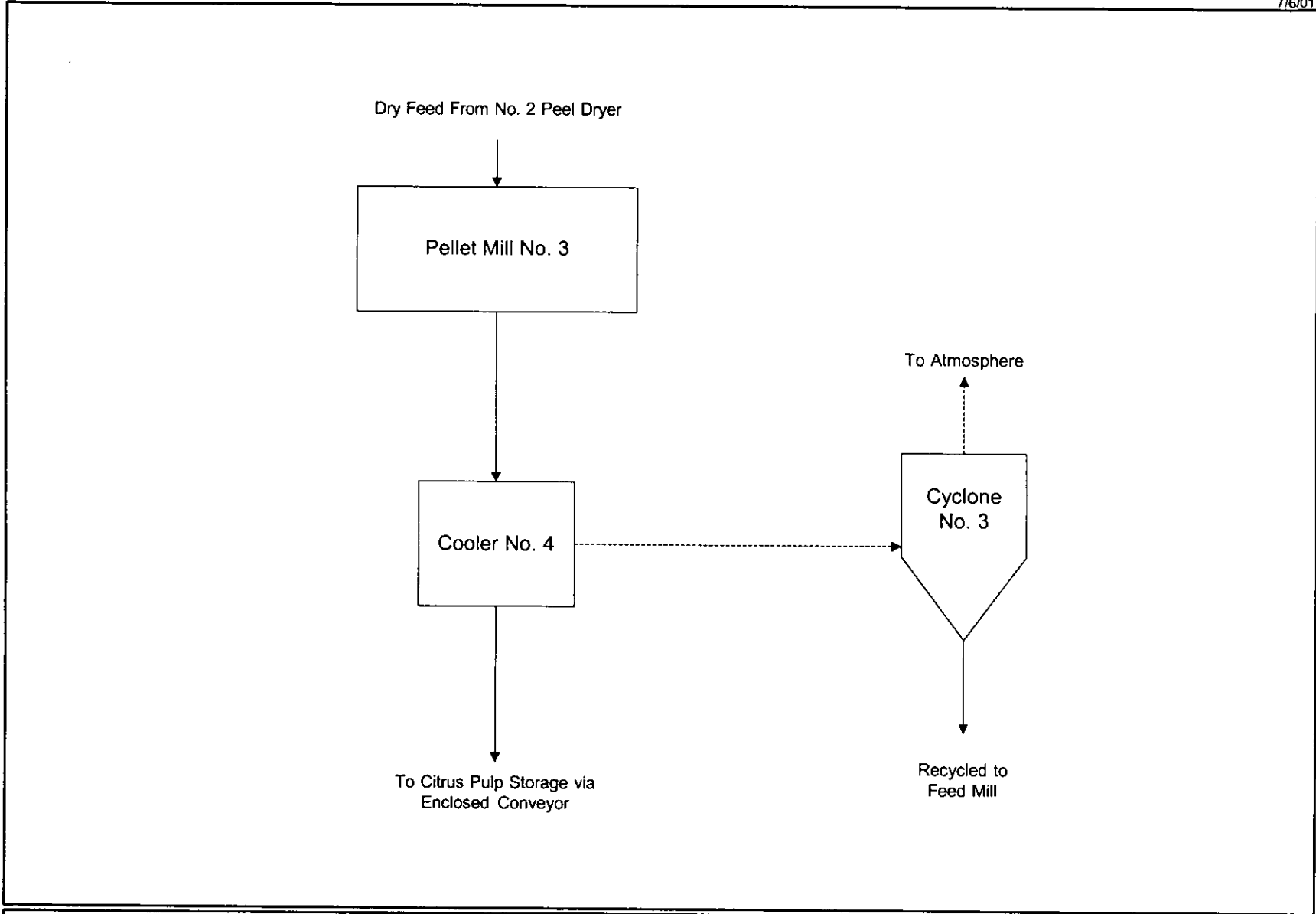
 Early/Mids -- 0.4275 lb oil/box and a hourly minimum of 50% oil recovery (51.67% overall oil recovered/juice/sewered).

 Valencia -- 0.6076 lb oil/box and a hourly minimum of 50% oil recovery (51.67% overall oil recovered/juice/sewered).

 Annual Average - assumes a 50/50 mix of Valencia and Early/Mids and an annual average of 55% oil recovery (56.67% overall oil recovered/juice/sewered).

 Based on 90 lb of fruit/box; 8.2 lb bone dry peel/box; 9% of oil to dryer emitted from pellet cooler.

**ATTACHMENT SG-EU2-J1
PROCESS FLOW DIAGRAM**



Attachment SG-EU2-J1
Southern Gardens Citrus Processing Corporation
Process Flow Diagram
Clewiston, Florida

Process Area: Pellet Mill No. 3/Cooler No. 4
Filename: SG-FIGS.VSD
Latest Revision Date: 7/6/01

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



ATTACHMENT A

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1.0 INTRODUCTION

Southern Gardens Citrus Processing Corporation (SGCPC) is a citrus processing facility located in Hendry County, west of Clewiston (see application form, Attachment SG-FE-1). This air construction permit application is requesting authorization to perform the following:

1. Increase the facility's maximum citrus fruit production capacity from 20 million boxes per year to 22.5 million boxes per year,
2. Install a used citrus peel dryer/waste heat evaporator, and
3. Install a pellet mill and pellet cooler to support the peel dryer operation.

The SGCPC facility was originally permitted in June 1992 and began initial operations in January 1994. SGCPC currently holds a Title V Operating Permit (Permit No. 0510015-004-AV). Emissions units included in the Title V permit include four process steam boilers, a citrus peel dryer/waste heat evaporator (WHE), two pellet mills and three pellet coolers, a lime silo, four fuel oil storage tanks, three d-limonene storage tanks, and other insignificant emissions units.

The SGCPC facility currently has a total of 39 citrus juice extractors, one citrus peel dryer/WHE, three pellet coolers, and four steam boilers. An air construction and prevention of significant deterioration (PSD) permit (permit no. 0510015-007-AC/PSD-FL-299) was issued in December 2000 for the addition of three new extractors, adding to the existing 36 extractors. The PSD permit limited the total fruit processing capacity of the facility to 20 million boxes of fruit per year. However, due to increased demand, SGCPC is requesting that this facility production cap now be increased to 22.5 million boxes per year. The existing extractors are capable of accommodating this increased throughput on an annual basis.

SGCPC recently had an opportunity to purchase a used peel dryer/WHE at a favorable price from another citrus processing facility. SGCPC has purchased the used dryer/WHE, and now desires to bring it to the SGCPC plant site and install the dryer. The relocated peel dryer/WHE (identified as the No. 2 Peel Dryer/WHE) will be the same capacity as the existing peel dryer/WHE. Since the existing dryer/WHE is capable of accommodating the requested 22.5 million boxes per year facility production cap, the relocated No. 2 Peel Dryer/WHE would be used primarily as a backup unit at this time.

SGCPC is also proposing the addition of a new pellet mill and cooler to support the additional peel dryer. The new No. 4 Cooler will be similar to the existing No. 3 Cooler.

Note that SGCPC currently is exploring the possibility of further expanding the plant's production capacity, although there are no firm plans to expand at this time. Accordingly, SGCPC believes that it is appropriate to permit the proposed No. 2 Peel Dryer/WHE as a backup unit and to take a "synthetic minor" limit of 22.5 million boxes per year to avoid prevention of significant deterioration (PSD) review. Facility expansion would require additional juice extractors to be installed. If this occurs, the proposed dryer/WHE could no longer operate only as a backup -- both the existing and the proposed dryer/WHE would need to operate to process the peel that would be generated by the expanded plant. SGCPC recognizes that, if a facility expansion is undertaken and the limit of 22.5 million boxes per year is raised, the applicability of PSD to the proposed peel dryer/WHE would have to be evaluated as a "relaxation" under Rule 62-212.400(2)(g). SGCPC requests DEP's concurrence with this applicability analysis.

A plot plan of the SGCPC facility showing the location of the new equipment is presented in Attachment SG-FE-2. An overall process flow diagram is presented in Attachment SG-FE-3.

This report contains a project description and a regulatory analysis for this project. The regulatory analysis addresses the requirements set forth in the citrus industry legislation. This legislation requires certain emission limits and sets a minimum citrus oil recovery level to be met upon startup of a new or modified citrus plant.

2.0 PROJECT DESCRIPTION

2.1 EXISTING OPERATIONS

The SGPCPC facility currently has a total of thirty-nine (39) citrus juice extractors, one citrus peel dryer/WHE, two pellet mills with three pellet coolers, four steam boilers, and seven volatile organic liquid (VOL) storage tanks. The facility includes other equipment such as juice evaporators and refrigerated juice storage tanks to process the citrus juice into saleable products. An air construction and prevention of significant deterioration (PSD) permit (permit no. 0510015-007-AC/PSD-FL-299) was issued in December 2000 for the addition of three new extractors, adding to the existing 36 extractors. The PSD permit limited the total fruit processing capacity of the facility to 20 million boxes of fruit per year.

Currently, SGPCPC operates one 60,000 lb/hr (water evaporation rate) peel dryer that has a maximum heat input rate of 84.0 million British thermal units (MMBtu). The maximum bone dry peel (BDP) input rate is 18.5 tons per hour (TPH). Pressed peel input rates and dried peel production rates can vary based on the moisture content of the pressed peel and dried peel. SGPCPC burns No. 6 fuel oil with a maximum sulfur content of 1.5 percent in the dryer. A wet scrubber serves as control equipment. The peel dryer is permitted to operate up to 6,000 hours per year.

SGPCPC's pellet mill consists of two pellet mills and three pellet coolers (Cooler Nos. 1, 2, and 3). The maximum permitted process rate through the pellet mill is 23.0 TPH, total both mills. Cooler No. 3 operates alone, while Cooler Nos. 1 and 2 are used simultaneously for standby operation when Cooler No. 3 is shutdown for repair or maintenance. Cooler Nos. 1 and 3 utilize a common cyclone collector, while Cooler No. 2 has its own cyclone collector. The cyclones are considered as inherent control equipment since they are utilized to collect product. The total maximum operating hours of the pellet mill are 6,000 hr/yr.

Four steam boilers operate to supply steam to the juice processing equipment. The four boilers are rated at 33.6, 33.6, 35.6 and 6.3 MMBtu/hr, respectively, and all burn No. 2 fuel oil with a maximum sulfur content of 0.5 percent. Total fuel oil consumption for all boilers is limited to 4,078,000 gal/yr.

The seven VOL storage tanks consist of two No. 2 fuel oil tanks, two No. 6 fuel oil storage tanks, and three d-limonene storage tanks. The maximum permitted throughput rates through the tanks are 4,078,000 gal/yr, 7,100,863 gal/yr and 1,000,000 gal/yr, respectively.

2.2 PROPOSED CHANGES TO FACILITY

Due to increased demand for citrus fruit processing, SGPCPC is requesting that the current facility production cap of 20 million boxes per year be increased to 22.5 million boxes per year. The existing extractors are capable of accommodating this increased throughput on an annual basis. For the 2000-2001 processing, the facility will process over 19 million boxes of fruit. The requested higher production cap is achievable with existing equipment.

As discussed in Section 1.0, the existing dryer/WHE is capable of accommodating the requested 22.5 million boxes per year facility production cap, and therefore the proposed No. 2 Peel Dryer/WHE will be used primarily as a backup unit at this time. The proposed peel dryer will have the capacity to evaporate 60,000 lbs water per hour with a maximum heat input of 84.0 MMBtu/hr. The dryer will be fired with No. 2 fuel oil with a maximum sulfur content of 1.5 percent. The proposed WHE will have a maximum capacity of 135,000 lbs/hr water evaporation rate. The maximum peel production rate of the proposed dryer is 18.5 tons of bone dry peel (BDP) per hour. The dryer/WHE will operate for a maximum of 6,000 hours per year.

The proposed No. 3 Pellet Mill and No. 4 Pellet Cooler will operate whenever the No. 2 Peel dryer operates, i.e., primarily as a backup unit. The cooler will utilize its own cyclone collector for product collection. The maximum process rate of dried citrus pellets for the new pellet mill and pellet cooler is 23.0 TPH.

2.3 AIR EMISSIONS

The maximum emissions from the No. 2 Peel dryer/WHE and No. 4 Pellet Cooler are presented in Attachment SG-EU1-G8 and Attachment SG-EU2-G8, respectively. A summary of the annual emissions from the No. 2 Peel Dryer/WHE and No. 4 Pellet Cooler are presented in Table 2-1. Note that these emissions reflect all 22.5 million boxes of fruit per year being processed solely through the No. 2 Peel Dryer/WHE. These emissions would only occur if the No. 2 Peel Dryer processed all of the fruit received at the facility. In reality, the No. 2 Peel Dryer will be used primarily as a backup unit, and actual emission will be much less than those shown in Table 2-1.

SGCPC is requesting to increase the permitted facility production capacity to 22.5 million boxes of fruit per year. The future potential emissions from the SGCPC facility, reflective of 22.5 million boxes of fruit per year, are presented in Table 2-2. To further limit emissions of volatile organic compounds (VOC) and carbon monoxide (CO) from the facility, SGCPC will commit to a minimum future oil recovery of 56.67 percent. This includes 55 percent oil recovery from citrus oils, and 1.67 percent from oil remaining in juice and oil discharged to the sewer.

Since either the existing dryer or the proposed dryer can potentially process all of the peel resulting from 22.5 million boxes of fruit per year, the maximum facility emissions are based on the maximum annual emissions from either peel dryer. Future maximum emissions from the existing No. 1 Peel Dryer/WHE, based on 22.5 million boxes per year, are shown in Table 2-2. Tables 2-1 and 2-2 can be compared to determine the worst-case future annual emissions for the peel dryers for each pollutant.

The future maximum facility emissions based on processing 22.5 million boxes per year are presented in Table 2-3. The maximum emissions from either peel dryer (not both) were used in determining the maximum future facility emissions. Also, the emissions from Pellet Coolers No. 1 and 2, or Pellet Cooler No. 3, or Pellet Cooler No. 4 (not all together) were used in determining the future facility emissions (all the pellet coolers emit the same on a pounds of pollutant per ton of BDP basis). It is noted that although Table 2-3 includes the four process steam boilers, the increase in fruit production will not affect the annual permitted capacity of the steam boilers.

3.0 RULE APPLICABILITY

3.1 FLORIDA CITRUS INDUSTRY LEGISLATION

The citrus industry has been exempted from obtaining air pollution operation and construction permitting by the citrus industry legislation [FLL 403.0872(12)]. Instead of the typical permitting process, the legislation establishes certain emission limits and a minimum citrus oil recovery level that must be met upon startup of a new or modified citrus facility.

The citrus industry legislation establishes standards that all existing citrus juice processing facilities must comply with starting July 1, 2002, in lieu of current air construction and operating permits. These standards apply to facilities that have a fruit processing capacity of 2 million boxes per year or more. For the purpose of this legislation, "new sources" means emissions units constructed or added to a facility on or after July 1, 2000 and "existing sources" means emissions units constructed or modified before July 1, 2000. The following sections describe the requirements of this legislation and how it applies to this project.

3.1.1 EMISSION LIMITS

New or modified emission units must comply with this legislation upon startup. Existing sources have until October 31, 2002 to comply with the applicable requirements of the legislation.

The citrus industry legislation establishes limits for VOC, sulfur dioxide (SO₂), particulate matter of 10 microns or less (PM₁₀), nitrogen oxides (NO_x), and visible emissions (VE). VOC emissions are controlled by achieving a minimum of 50 percent recovery of oil from the citrus fruits processed. The oil recovery is required to be measured every operational day and averaged over the days of facility operation during a calendar year. SGPCPC already complies with the 50 percent recovery oil requirement since it is a requirement of the existing PSD permit. SGPCPC is proposing a minimum of 55 percent oil recovery on an annual basis for recovered citrus oils (equivalent to 56.67 percent total oil recovery, including oil remaining in juice and oil sent to sewer). One year after EPA's approval of the legislation, 65 percent of recovery of oil must be achieved.

SO₂ emissions are limited by sulfur content in fuel. Under this legislation, SGPCPC can fire fuel oil with a maximum of 1.0 percent sulfur by weight since SGPCPC does not have access to natural gas. SGPCPC has until October 31, 2002 to comply with this requirement facility-wide, but the new dryer

must comply upon startup. In order to meet this requirement, SGPCPC is proposing to burn fuel oil with a maximum sulfur content of 1.5 percent in the new peel dryer, but will meet an SO₂ emissions limit of 0.5 lb/MMBtu, which is equivalent to burning 0.5 percent sulfur fuel oil. Therefore, this meets the intent of the legislation. Historic SO₂ emissions testing at SGPCPC has demonstrated that SO₂ removal occurs in the peel dryer/WHE system, and that a limit of 0.5 lb/MMBtu is achievable while burning 1.5 percent sulfur fuel oil.

As with the fuel sulfur content, SGPCPC will have until October 31, 2002 to comply with all of the PM₁₀ emission standards applicable to its facility for sources that have not been constructed or modified since July 1, 2000. PM₁₀ emissions have been established for the following sources at citrus processing facilities:

- Citrus peel dryer,
- Pellet cooler or cooling reel,
- Process steam boilers,
- Combustion turbine,
- Duct burner, and
- Glass plant furnace

The PM₁₀ emission standards of concern for this project are for the citrus peel dryer and the pellet cooler. The PM₁₀ emission standard for citrus peel dryers is 15 lb/hr. The standard for the pellet cooler is 5 lb/hr.

NO_x emission standards have also been established for all of above sources with the exception of the pellet cooler. A NO_x standard has not been established for citrus peel dryers that fire natural gas, propane, ethanol, biogas, or d-limonene. For citrus peel dryers that fire fuel oil, the standard is 0.34 pounds per MMBtu. The new citrus dryer at the SGPCPC facility will comply with the 0.34 pounds per MMBtu upon startup since it will fire No.6 fuel oil.

VE limits have been established for both citrus peel dryers and pellet coolers. The VE limit for the citrus peel dryer is 20 percent of opacity and the VE limit for the pellet cooler is 5 percent.

3.1.2 EMISSIONS DETERMINATIONS AND REPORTING

For all emissions for which SGPCPC is limited by the legislation, SGPCPC must determine the emissions for each calendar year and report to the Florida Department of Environmental Protection (FDEP) by April 1 of the following year. These emissions must be determined for each emissions unit by means of recordkeeping, test methods, averaging periods or other statistical conventions that meet the following requirements:

- Yield reliable data,
- Coincide with the emissions limit being measured,
- Represent the unit's performance; and
- Show the actual emissions of the unit.

Under the citrus legislation, SGPCPC is required to submit annual operating reports in accordance with FDEP's rules and annual and semiannual statements of compliance required under FDEP's Title V permitting rules. SGPCPC is also required to maintain all records that show compliance with the requirements of this legislation for five years.

Emission units subject to emission limiting standards for PM₁₀, NO_x, and VE are required to test emissions annually. PM emissions must be tested with Environmental Protection Agency (EPA) Method 5, provided that all PM emissions are assumed to PM₁₀. Under this legislation, SGPCPC will not have to test the PM emissions from the pellet cooler as long as compliance with the applicable VE limit is demonstrated. If the pellet cooler does not comply with the VE standard, a Method 5 test will need to be conducted within 30 days after the visible emissions test. Tests for VE must be conducted using EPA Method 9. Tests for NO_x emissions will be conducted using EPA Method 7E.

Sulfur content of fuel oil must be measured using the latest American Society for Testing and Materials methods suitable for determining sulfur content of fuel oil. SO₂ emissions are determined by using a mass balance using the sulfur content and the amount of fuel fired in the citrus peel dryer. The conversion of 2 pounds of SO₂ emitted for each pound of sulfur in the fuel fired will be used in the mass balance. In SGPCPC's case, compliance is proposed to be demonstrated by performing an annual SO₂ compliance test on the peel dryer/WHE stack.

SGPCPC will continue to be subject to emission fees under FDEP's Title V program. Commencing July 1, 2002, the allowable annual emissions for fee purposes will be computed as the emission limits

established in the legislation multiplied by the actual operation rates, heat input and hours of operation of each source for the previous operating year. If adequate records of actual heat input and operation rates are not maintained, it will be assumed that the source operated at its maximum capacity during hours of operation. If the hours of operation were not documented, it will be assumed that the source operated January 1 through May 31 and October 1 through December 31 of the previous operating year. The annual emissions fee shall be due and payable April 1 for the preceding calendar year.

3.2 PSD APPLICABILITY

Although PSD review for the proposed project is not required under the citrus industry legislation, an analysis is presented herein in the event that EPA ultimately disapproves of the legislation, and retroactive PSD review is required. The proposed project potentially affects all emitting units at the SGPCPC facility since the annual amount of fruit processed will increase.

SGPCPC received a PSD permit in December of 2000 for the addition of three citrus extractors to the facility. PSD review was triggered for PM, PM₁₀, SO₂, NO_x, CO, and VOC. Because the PSD permit was issued just recently, there is no historical two-year operating period which is representative of normal operations under the new PSD permit. In such cases, DEP rules provide that potential emissions shall equal actual emissions [Rule 62-210.200(12)(c), F.A.C.]. Therefore, the potential emissions reflected in the PSD permit constitute the baseline emissions for determining future PSD applicability.

The future potential emissions of the facility based on 22.5 million boxes/yr of fruit are compared to the PSD baseline emissions in Table 3-1. As shown, the proposed project will result in an increase in emissions of NO_x, CO, and VOC. However, all emission increases are below the PSD significant emission rates, as shown in Table 3-1. As a result, PSD review would not apply to the proposed project.

As described in Section 1.10, SGPCPC currently is exploring the possibility of further expanding the plant's production capacity, although there are no firm plans to expand at this time. Accordingly, SGPCPC believes that it is appropriate to permit the proposed No. 2 Peel Dryer/WHE as a backup unit and to take a "synthetic minor" limit of 22.5 million boxes per year to avoid prevention of significant deterioration (PSD) review. Facility expansion would require additional juice extractors to be

installed. If this occurs, the No. 2 Peel Dryer/WHE could no longer operate only as a backup -- both the existing and the proposed peel dryer/WHE would need to operate to process the peel that would be generated by the expanded plant. SGPCPC recognizes that, if a facility expansion is undertaken and the limit of 22.5 million boxes per year is raised, the applicability of PSD to the No. 2 Peel Dryer/WHE would have to be evaluated as a "relaxation" under Rule 62-212.400(2)(g). This rule addresses relaxations in permitted capacity under the PSD regulations:

(g) Relaxations of Restrictions on Pollutant Emitting Capacity. If a previously permitted facility or modification becomes a facility or modification which would be subject to the preconstruction review requirements of this rule if it were a proposed new facility or modification solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility or modification to emit a pollutant (such as a restriction on hours of operation), which limitation was established after August 7, 1980, then at the time of such relaxation the preconstruction review requirements of this rule shall apply to the facility or modification as though construction had not yet commenced on it.

Although this rule is not relevant to the current proposal, it could be at the time SGPCPC further expands the facility. SGPCPC requests DEP's concurrence with this applicability analysis.

3.3 APPLICABILITY OF MACT REGULATIONS

Regulations pertaining to major sources of hazardous air pollutants (HAPs) are contained in 40 CFR Part 63. These regulations require that major sources of HAPs apply maximum achievable control technology (MACT). The EPA has promulgated MACT regulations for a number of source categories to date. These regulations require implementation of MACT for new sources prior to startup, and for existing sources by the deadlines set for each source category. For new or reconstructed major sources of HAPs in source categories for which EPA has not yet promulgated MACT regulations, a case-by-case determination of MACT is required (40 CFR 63.42(c)) prior to beginning construction.

SGPCPC is proposing to relocate an existing citrus peel dryer/WHE to its Clewiston facility. Recently, EPA proposed to clarify 40 CFR Part 63 in regards to the effect of relocating an existing source subject to MACT (Federal Register, March 23, 2001, pg. 16317). The issue was whether or not a relocated source is "constructed", and thus subject to new source MACT. EPA proposed to amend 40 CFR 63.2 by adding: "Construction does not include the removal of all equipment

comprising an affected source from an existing location and reinstallation of such equipment at a new location. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as set forth below." SGCPC is relocating a portion of a process or production unit- the peel dryer/WHE. The entire citrus processing facility is not being relocated. Thus, SGCPC is installing only a piece of a process or production unit, and not an entire unit.

Reconstruction is defined in 40 CFR 63.41 as the replacement of components at an existing production unit such that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost to construct a comparable new production unit. The relocated SGCPC No. 2 Peel Dryer will not trigger reconstruction under these regulations.

Based on the above analyses, new source MACT will not apply to the relocated peel dryer. Existing source MACT will apply to the No. 2 Peel Dryer if and when EPA promulgates such regulations.

Table 2-1. Summary of Annual Emissions from No. 2 Peel Dryer/WHE and
No. 4 Pellet Cooler, Southern Gardens

Regulated Pollutant	Annual Emissions (TPY)		Total Emissions (TPY)
	No. 2 Dryer/WHE	No. 4 Pellet Cooler	
Particulate (PM)	96.2	15.0	111.2
Particulate (PM ₁₀)	45.0	15.0	60.0
Sulfur Dioxide	126.0	--	126.0
Nitrogen Oxides	85.7	--	85.7
Carbon Monoxide	2,906.3	--	2,906.3
Volatile Organic Componds	1,816.5	227.1	2,043.5

Table 2-2. Future Poential Emissions for Peel Dryer No. 1 with a Process Rate of 22.5 Million Boxes Per Year (55% Oil Recovery) ^a

Regulated Pollutant	Emission Factor	Reference	Short-Term Activity Factor ^a	Maximum Hourly Emissions (lb/hr)	Annual Activity Factor ^b	Annual Emissions (TPY)
Particulate (PM)	32.05 lb/hr	1	--	32.05	6,000 hr/yr	96.15
Particulate (PM ₁₀)	100% of PM	2	--	32.05	6,000 hr/yr	96.15
Sulfur dioxide	0.5 lb/MMBtu	3	84.0 MMBtu/hr	42.0	504,000 MMBtu/yr	126.0
Nitrogen oxides	1.5 lb/ton BDP	4	18.5 tons/hr BDP	27.7	92,250 tons/yr BDP	69.2
Carbon monoxide						
Early/Mids	58.05 lb/ton BDP	5	18.5 tons/hr BDP	1,071.1	--	--
Valencia	82.51 lb/ton BDP	5	18.5 tons/hr BDP	1,522.3	--	--
Annual Average	63.01 lb/ton BDP	5	--	--	92,250 tons/yr BDP	2,906.3
VOC						
Early/Mids	36.28 lb/ton BDP	6	18.5 tons/hr BDP	669.4	--	--
Valencia	51.57 lb/ton BDP	6	18.5 tons/hr BDP	951.4	--	--
Annual Average	39.38 lb/ton BDP	6	--	--	92,250 tons/yr BDP	1,816.5

Footnotes:

^a Proposed throughput rate and maximum heat input rate.

^b Based on 84 MMBtu/hr and 6,000 hours per year or 22.5 million boxes per year and 8.2 lb BDP/box.

BDP = bone dry peel

References:

1. Maximum emission rate based on Process Weight Formula, $E = 17.31E^{0.16}$, where E is in lb/hr and P = 47 TPY throughput rate [62-296.320(4)(a), F.A.C.].

2. Conservative assumption.

3. Permitted emission limit.

4. Maximum emissions based on stack test data.

5. Based on 160% of VOC emissions, derived from stack test data.

6. Emission factor based on General FCPA Emission Factor, maximum production rates and:

 Early/Mids -- 0.4275 lb oil/box and a hourly minimum of 50% oil recovery (51.67% overall oil recovered/juice/sewered).

 Valencia -- 0.6076 lb oil/box and a hourly minimum of 50% oil recovery (51.67% overall oil recovered/juice/sewered).

 Annual Average - assumes a 50/50 mix of Valencia and Early/Mids and an annual average of 55% oil recovery (56.67 overall oil recovered/juice/sewered).

 Based on 90 lb fruit/box; 8.2 lb BDP/box; 72% of oil to dryer emitted from dryer stack.

Table 2-3. Future Potential Emissions for Southern Gardens Citrus Processing Corporation with a Process Rate of 22.5 Million Boxes Per Year (55% Oil Recovery) ^a

Regulated Pollutant	Future Potential Emissions (TPY)					Total Future Emissions (TPY)
	Peel Dryer No. 1	Peel Dryer No. 2	Maximum of Peel Dryers	Pellet Cooler Nos. 1-4	Boiler ^b Nos. 1-4	
Particulate (PM)	96.2	96.2	96.2	15.0	4.1	115.3
Particulate (PM ₁₀)	96.2	45.0	96.2	15.0	2.0	113.2
Sulfur dioxide	126.0	126.0	126.0	--	140.7	266.7
Nitrogen oxides	69.2	85.7	85.7	--	40.8	126.5
Carbon monoxide	2,906.3	2,906.3	2,906.3	--	10.2	2,916.5
VOC	1,816.5	1,816.5	1,816.5	226.9	1.0	2,044.4

Footnotes:

^a The 55% oil recovery reflects actual recovered oils only (cold press oil, d-limonene, and oil phase essence). Overall oil recovery, including oil remaining in juice and oil sent to sewer, is 56.67%.

^b Based on emissions presented in PSD application for extractor additions submitted to FDEP 9/00.

Table 3-1. Net Emission Increases for Southern Gardens Citrus Processing Corporation

Pollutant	Total Future Emissions (TPY)	Baseline ^a (TPY)	Net Change (TPY)	PSD Significant Emission Rate (TPY)	PSD Review Applies?
Particulate (PM)	115.3	115.3	0	25	No
Particulate (PM ₁₀)	113.2	113.2	0	15	No
Sulfur dioxide	266.7	266.7	0	40	No
Nitrogen oxides	126.5	102.3	24	40	No
Carbon monoxide	2,916.5	2,892	25	100	No
VOC	2,044.4	2,026	18	40	No

Footnotes:

^a Baseline emissions are based on future maximum emissions from the PSD application for the new juice extractors (9/00).