

U.S. Postal Service
CERTIFIED MAIL RECEIPT
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7000 0600 0021 6524 2366

Article Sent To:
 Mr. Tristan Chapman, Vice President

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Name (Please Print Clearly) (to be completed by mailer)
 Mr. Tristan Chapman, Vice President
 Street, Apt. No., or PO Box No.
 Post Office Box 130
 City, State, ZIP+4
 Clewiston, Florida 33440

PS Form 3800, July 1999 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1 Article Addressed to:
 Mr. Tristan Chapman
 Vice President, General Manager
 Southern Gardens Citrus Processing Corporation
 Post Office Box 130
 Clewiston, Florida 33440

COMPLETE THIS SECTION ON DELIVERY

A. Signature
 X *Andrew Sells* Agent Addressee
 B. Received by (Printed Name)
 C. Date of Delivery
 1-15-03

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 X Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2 Article Number
 (Transfer from service label) 7000 0600 0021 6524 2366

UNITED STATES POSTAL SERVICE



First-Class Mail
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USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box. •

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR RESOURCES MANAGEMENT
BUREAU OF AIR REGULATION - TITLE V
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

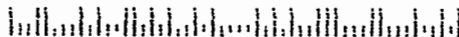
ms 5505

BUREAU OF AIR REGULATION

JAN 17 2003

RECEIVED

2395/2400



Florida Department of
Environmental Protection

Memorandum

BAR

To: Howard

From: Trina

Date: January 8, 2003

RE: extension of expiration date for Southern Gardens

Southern Gardens has requested a 6-month extension of the December 31, 2002 expiration date on its construction permit. The company was granted a 6-month extension previously [July 31, 2002 to December 31, 2002] to install a backup peel dryer. This extension will allow the company additional time to complete compliance testing and submit its Title V operating permit revision application.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

January 7, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Tristan Chapman
Vice President, General Manager
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

Re: Extension of Expiration Date of Permit No. 0510015-008-AC
Backup Peel Dryer No. 2

Dear Mr. Chapman:

The applicant applied on December 17, 2002 to the Department for a second extension of the expiration date of air construction permit number 0510015-008-AC for the installation of a backup peel dryer at their existing citrus processing Plant located at 755 CR 883, Clewiston, Hendry County. The expiration date of the permit was first extended from July 31, 2002 to December 31, 2002 on August 23, 2002. The Department has reviewed the request. The expiration date is hereby extended from December 31, 2002 to June 30, 2003 to allow additional time for compliance testing and submittal of a Title V operating permit revision application.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permitting decision is issued pursuant to Chapter 403, Florida Statutes.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address

"More Protection, Less Process"

Printed on recycled paper.

for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.


Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

This permitting decision is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of

time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this order will not be effective until further order of the Department.

Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.


Howard L. Rhodes, Director
Division of Air Resources
Management

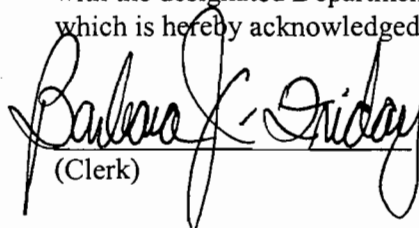
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this order was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 1/13/03 to the person(s) listed:

Mr. Tristan Chapman, Southern Gardens Citrus Processing Corporation *
Mr. David Buff, P.E., Golder Associates
Mr. Ron Blackburn, DEP SD

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to §120.52, Florida Statutes,
with the designated Department Clerk, receipt of
which is hereby acknowledged.


(Clerk) 1/13/03
(Date)

RECEIVED

DEC 17 2002

DIVISION OF AIR
RESOURCES MANAGEMENT



Golder Associates Inc.

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

December 16, 2002

0137582

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

*to: Trina
Cher
Howard
1/6/03*

Attention: Howard L. Rhodes, Director

RE: **SOUTHERN GARDENS CITRUS PROCESSING CORPORATION**
PERMIT NO. 0510015-008-AC
PEEL DRYER NO. 2

Dear Mr. Rhodes:

On behalf of Southern Gardens Citrus Processing Corporation (Southern Gardens), Golder Associates Inc. is requesting an extension of the Peel Dryer No. 2 construction permit, Permit No. 0510015-008-AC, which expires December 31, 2002.

Physical construction of Peel Dryer No. 2 was completed during the 2002 off-season. The 2002-2003 processing season began the week of November 4 at Southern Gardens. However, the No. 2 Peel Dryer was not started up until November 18. The dryer operated intermittently until November 26, when it was shutdown for repairs. The No. 2 Peel Dryer will be shutdown for an undetermined amount of time until the necessary repairs are completed.

In order to comply with the requirement to conduct initial compliance testing of Peel Dryer No. 2, Southern Gardens proposes to conduct particulate matter, sulfur dioxide, and visible emissions testing on the waste heat evaporator, while Peel Dryer No. 2 is operating and Peel Dryer No. 1 is shutdown. Upon restarting the No. 2 Peel Dryer, Southern Gardens will schedule the compliance test and provide the required 15-day notice to the Department. This may require 30 to 45 days after restart to allow for stack testing company schedules. However, Southern Gardens will complete the required compliance testing no later than February 1, 2003. This schedule has been agreed upon by the Department's Ft. Myers District office.

Southern Gardens is currently in the process of revising their Title V operating permit, Permit No. 0510015-004-AV, to include Peel Dryer No. 2 and the specific conditions of the construction permit. To allow for the compliance testing, as well as processing time for the Title V revision, we are requesting an extension of the Peel Dryer No. 2 construction permit, Permit No. 0510015-008-AC, until June 30, 2003.

If you have any questions about this request, please call me at (352) 336-5600.

Sincerely,
GOLDER ASSOCIATES INC.

David A. Buff

David A. Buff, P.E., Q.E.P.
Principal Engineer
Florida P. E. #19011

DB/jkw

cc: Ron Blackburn, DEP Ft. Myers
D. Pridgen, Southern Gardens
O. Rodriguez, Southern Gardens

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <i>X [Handwritten Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery 1-15-03</p>
<p>1. Article Addressed to:</p> <p>Mr. Tristan Chapman Vice President, General Manager Southern Gardens Citrus Processing Corporation Post Office Box 130 Clewiston, Florida 33440</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label) 7000 0600 0021 6524 2366</p>	
<p>PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540</p>	

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:
Mr. Tristan Chapman, Vice President

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Name (Please Print Clearly) (to be completed by mailer)
Mr. Tristan Chapman, Vice President

Street, Apt. No., or PO Box No.
Post Office Box 130

City, State, ZIP+4
Clewiston, Florida 33440

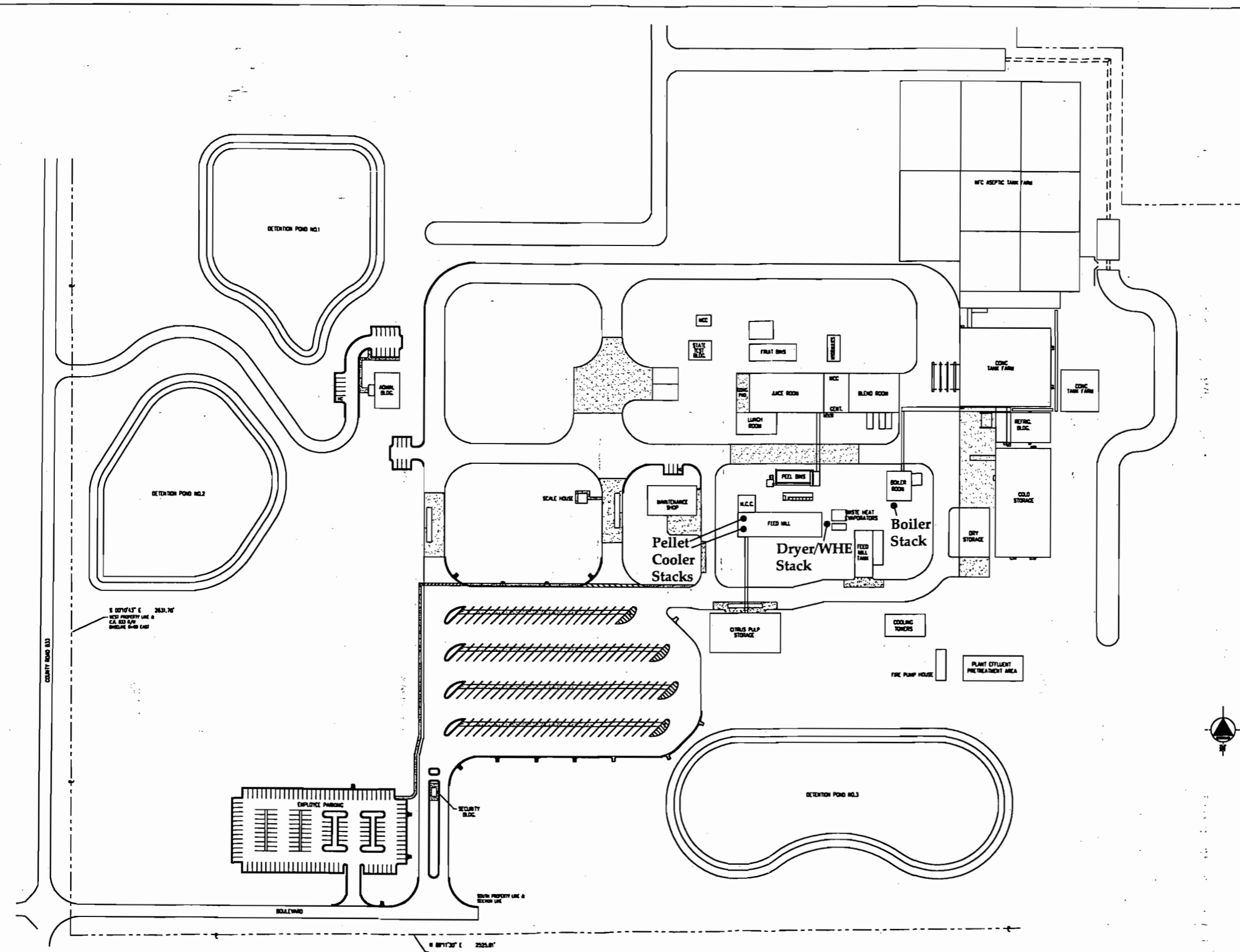
PS Form 3800, July 1999 See Reverse for Instructions

7000 0600 0021 6524 2366

Figure 6-1
Facility Plot Plan
0037568Y\F1\WP\Figure6-1.dwg

Legend

- Stack Location



S 00°10'45" E 263.3' ±
WEST PROPERTY LINE &
CAL. 100' R/W
ENCLOSURE BOUND LINE

COUNTY ROAD 833

BOULEVARD

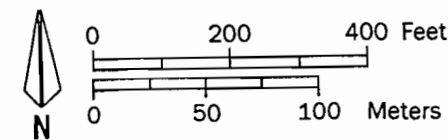
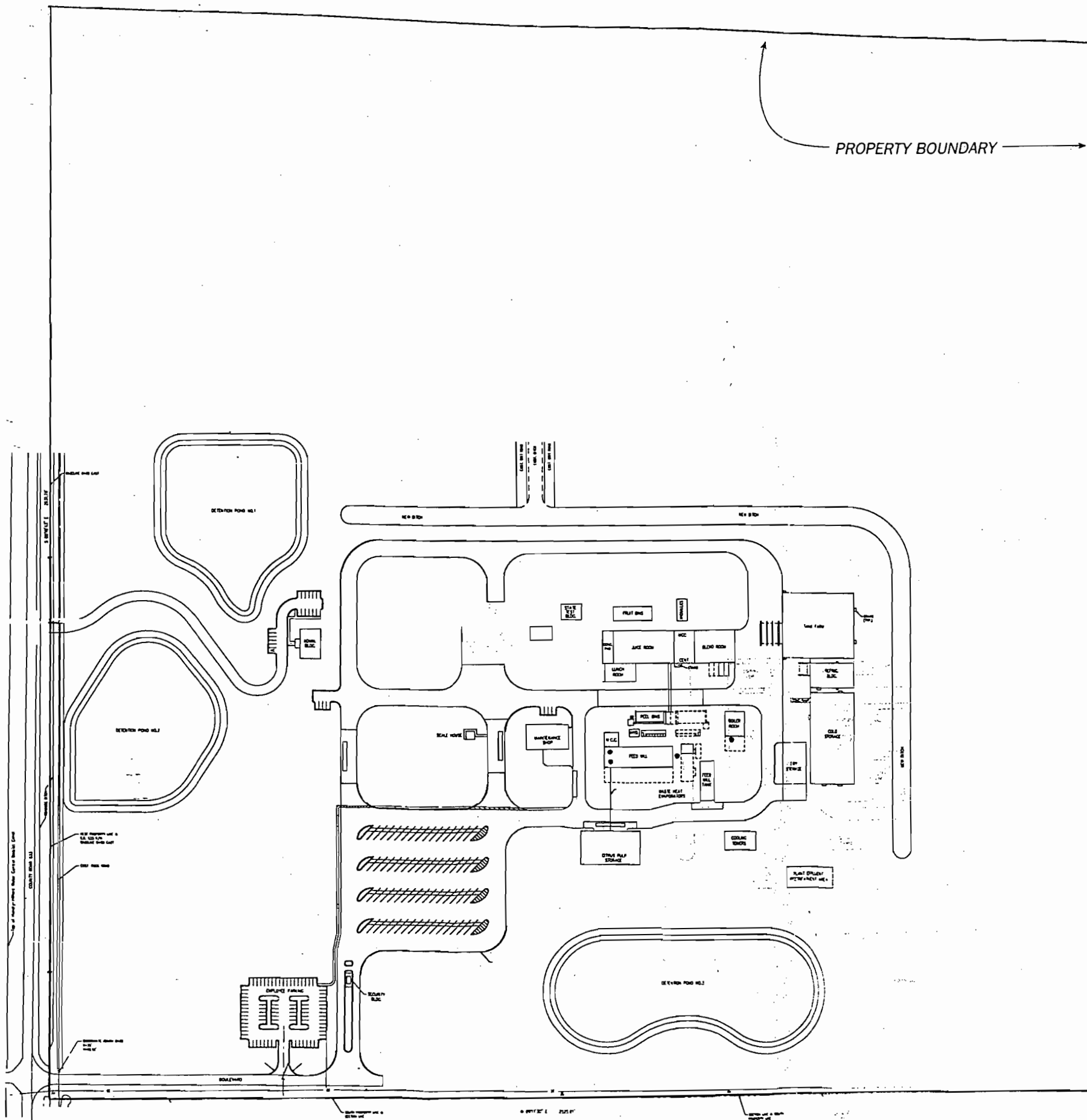
N 89°17'30" E 2525.8'

SOUTH PROPERTY LINE &
SECTION LINE



Figure 3
Plant Layout Diagram

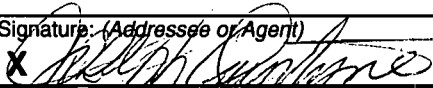
Southern Gardens Citrus



7099 3400 0000 1453 3372

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
<i>(Domestic Mail Only; No Insurance Coverage Provided)</i>	
Article Sent To:	
Mr. Tristan Chapman	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$
Southern Gardens Postmark Here	
Name (Please Print Clearly) (to be completed by mailer)	
Mr. Tristan Chapman	
Street, Apt. No., or PO Box No.	
PO Box 130	
City, State, ZIP+4	
Clewiston, FL 33440	
PS Form 3800, July 1999	
See Reverse for Instructions	

Is your RETURN ADDRESS completed on the reverse side?

SENDER: <ul style="list-style-type: none"> Complete items 1 and/or 2 for additional services. Complete items 3, 4a, and 4b. Print your name and address on the reverse of this form so that we can return this card to you. Attach this form to the front of the mailpiece, or on the back if space does not permit. Write "Return Receipt Requested" on the mailpiece below the article number. The Return Receipt will show to whom the article was delivered and the date delivered. 		I also wish to receive the following services (for an extra fee): <ol style="list-style-type: none"> <input type="checkbox"/> Addressee's Address <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: Mr. Tristan Chapman VP and General Manager Southern Gardens Citrus Processing Corp. PO Box 130 Clewiston, FL 33440		4a. Article Number 7099 3400 0000 1453 3372	
5. Received By: (Print Name) 		4b. Service Type <input checked="" type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
6. Signature: (Addressee or Agent) <input checked="" type="checkbox"/> 		7. Date of Delivery 12-6-00	
		8. Addressee's Address (Only if requested and fee is paid) 	

Thank you for using Return Receipt Service.

UNITED STATES POSTAL SERVICE



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USPS
Permit No. G-10

RECEIVED

DEC 08 2000

BUREAU OF AIR REGULATION

• Print your name, address, and ZIP Code in this box •

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation, NSRS
2600 Blair Stone Road, MS 5505
Tallahassee, Florida 32399-2400



P.O. BOX 140485 Gainesville, FL. 32614-0485
Owned and operated by W.W. Consultants, Inc.
Gainesville 375-8583 Toll Free 1-800-777-6786

72114

Sender Receiver \$ _____
Bill Charges To: COD

Sender <i>GOLDER ASS</i>			Receiver <i>FIDER DARM</i>		
Street Address <i>6241 NW 23 ST</i>			Street Address <i>111 SOUTH MAGNOLIA ST</i>		
City <i>GUN</i>	Zip		City <i>TALL</i>	Zip	
Driver 1 <i>SM</i>	P.U. Time <i>0453</i>	Date <i>9-5</i>	Driver 2	Del. Time <i>1137</i>	Date <i>9-5</i>

Pieces Description of Contents / Weight / Job #'s / STAT / Special Instructions / etc:
1 Box

It is agreed and understood that the liability of Pro Run is limited to no more than the charge for this transaction.

Sender's Signature

Receiver's Signature

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:

Tristan Chapman, VP & Gen. Mgr.

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Southern
Gardens

Postmark
Here

Name (Please Print Clearly) (to be completed by mailer)

Tristan Chapman

Street, Apt. No., or PO Box No.

PO Box 130

City, State, ZIP+4

Clewiston, FL 33440

PS Form 3800, July 1999

See Reverse for Instructions

7099 3400 0000 1453 1767

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1 Article Addressed to:

Mr. Tristan Chapman
 VP & Gen. Mgr.
 Southern Gardens Citrus
 Processing Corp.
 PO Box 130
 Clewiston, FL 33440

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

C. Signature

Tristan Chapman Agent
 Addressee

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type

Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2 Article Number (Copy from service label)
 7099 3400 0000 1453 1767

PS Form 3811, July 1999

Domestic Return Receipt

102595-99-M-1789

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation, NSRS
2600 Blair Stone Road, MS 5505
Tallahassee, Florida 32399-2400

BUREAU OF AIR REGULATION

OCT 18 2000

RECEIVED



The Clewiston News

Published Weekly

Clewiston, Florida

AFFIDAVIT OF PUBLICATION

State of Florida

County of Hendry

Before the undersigned authority, personally appeared Katrina Elsen, who on oath says she is the Executive Editor of the Clewiston News, a weekly newspaper published at Clewiston in Hendry County, Florida, that the attached copy of advertisement, being a Notice in

the matter of Intent to Issue

Air Construction Permit

RECEIVED in the

OCT 25 2000 court, was published in

said newspaper in the issue of October 18, 2000

~~BUREAU OF PUBLIC RELATIONS~~

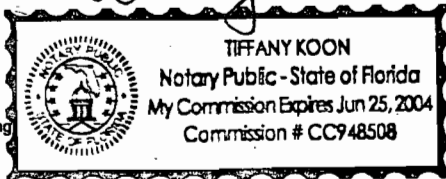
Affiant further says that the said Clewiston News is a newspaper published at Clewiston, in said Hendry County, continuously published in said Hendry County, Florida, each week, and has been entered as a second class mail matter at the post office in Clewiston, in said Hendry County, Florida, for a period of one year next preceding the first publication says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Katrina Elsen

Sworn to and subscribed before me this 18th day of October, A.D. 2000.

Tiffany Koon

Notary Public



Lyons Printing

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0510015-007-AC, PSD-FL-299

Southern Gardens Citrus Processing Corp.

Addition of 3 Juice Extractors

Hendry County

must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any such shall be the address for service proposed during the course of the proceeding, and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when the petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modifications of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state the no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 am to 5:00 pm, Monday through Friday, except legal holidays, at:

Department of Environmental Protection Bureau of Air Regulation Suite 4, 111 S. Magnolia Drive Tallahassee, Florida 32301 Telephone: 850/488-0114 Fax: 850/922-6979	Department of Environmental Protection South Florida District Suite 364, 2295 Victoria Avenue Fort Myers, Florida 33901-3381 Telephone: 941/332-6975
--	--

The complete project file includes the application, technical evaluations, draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, or the Department's reviewing engineer for this project, Joseph Kahn, P.E., at the Bureau of Air Regulation in Tallahassee, Florida, or call 850/488-0114, for additional information. Written comments directed to the Department's reviewing engineer should be sent to the following mailing address: Dept. of Environmental Protection, Bureau of Air Regulation, Mail Station #5505, Tallahassee, Florida, 32399-2400.

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Southern Gardens Citrus Processing Corp., to install three additional juice extractors at the existing facility located at 755 County Road 833, Clewiston, Hendry County. The applicant's mailing address is: PO Box 130, Clewiston, Florida 33440. A Best Available Control Technology (BACT) determination was required for this project pursuant to Rule 62-212.400, F.A.C., for three existing d-limonene storage tanks. The permit removes specific emission limits for volatile liquid storage tanks, but limits potential emission of air pollutants by limiting fruit throughput and operation of certain exiting emissions units at the facility.

An air quality impact was conducted. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards. The maximum predicted PSD Class II increments of SO₂ and PM₁₀ consumed by all sources in the area, including this project, will be as follows:

	<u>PSD Class II Increment Consumed (ug/m³)</u>	<u>Allowable Increment (ug/m³)</u>	<u>Percent Increment Consumed</u>
PM₁₀			
24-hour	22	31	73
Annual	1	17	6
SO₂			
3-hour	168	512	33
24-hour	77	91	85
Annual	3	20	15

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department Bureau of Air Regulation at 2600 Blair Stone Road, Mall Station #5505, Tallahassee, FL 32399-2400.

Any written comments filed shall be made available for public inspection. If written comments received result in a significant change to the proposed agency action, the Department shall revise the proposed permit and require, if applicable another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to section 120-569 and 120-57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office Of General Counsel of the Department at 3900 Commonwealth Boulevard, Mall Station #35, Tallahassee, FL, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

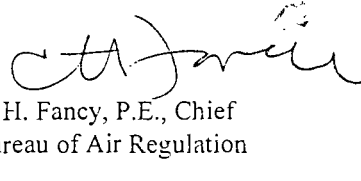
Mr. Tristan Chapman, VP and General Mgr.
Southern Gardens Citrus Processing Corp.
PO Box 130
Clewiston, Florida 33440

DEP File No. 0510015-007-AC, PSD-FL-299
Addition of 3 Juice Extractors
Hendry County

Enclosed is Final Permit Number 0510015-07-AC, PSD-FL-299. This permit authorizes Southern Gardens Citrus Processing Corp. to install three additional juice extractors at its existing facility located at 755 County Road 833, Clewiston, Hendry County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



C. H. Fancy, P.E., Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 12/4/00 to the person(s) listed:

Mr. Tristan Chapman, Southern Gardens*
Mr. David Buff, P.E., Golder Associates Inc.
Mr. Ron Blackburn, DEP South District
Mr. Gregg Worley, EPA
Mr. John Bunyak, NPS

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Charlotta J. Hayes 12/4/00
(Clerk) (Date)

Is your RETURN ADDRESS completed on the reverse side?

SENDER: ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
3. Article Addressed to: Mr. Tristan Chapman VP and General Manager Southern Gardens Citrus Processing Corp. PO Box 130 Clewiston, FL 33440	4a. Article Number 7099 3400 0000 1453 3372	4b. Service Type <input checked="" type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD
5. Received By: (Print Name) X <i>Tristan Chapman</i>	6. Signature: (Addressee or Agent)	7. Date of Delivery 12-6-00
8. Addressee's Address (Only if requested and fee is paid)		

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 Mr. Tristan Chapman

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Name (Please Print Clearly) (to be completed by mailer)
 Mr. Tristan Chapman
 Street, Apt. No., or PO Box No.
 PO Box 130
 City, State, ZIP+4
 Clewiston, FL 33440

PS Form 3800, July 1999 See Reverse for Instructions

7099 3400 0000 1453 3372

1 APPLICANT NAME AND ADDRESS

Southern Gardens Citrus Processing Corp.
PO Box 130
Clewiston, Florida 33440

Authorized Representative: Tristan Chapman, VP and General Manager

2 PROJECT

The project is the installation of three additional citrus juice extractors at its existing citrus processing facility, raising the total number of extractors to thirty nine, and raising the annual processing capacity of the facility to 20 million boxes of citrus fruit per year (based on 90 pounds of oranges or 85 pounds of grapefruit per box). The project description, emissions and rule applicability are described in detail in Section I of the permit.

3 SOURCE IMPACT ANALYSIS

As discussed in more detail in Section II of the permit, the annual potential emissions associated with this project are: PM/PM₁₀, 115.3/113.2; SO₂, 266.7, NO_x, 102.3; CO, 2892; and VOC, 2026 tons per year. An impact analysis was required for this project because it is subject to the requirements of PSD for these pollutants.

3.1 AIR QUALITY ANALYSIS INTRODUCTION

The proposed project will increase emissions of five regulated pollutants at levels in excess of PSD significant amounts: PM/PM₁₀, SO₂, NO₂, CO and VOC. PM₁₀, SO₂ and NO₂ are criteria pollutants and have national and state ambient air quality standards (AAQS), PSD increments, and significant impact levels defined for them. CO is a criteria pollutant and has only AAQS and significant impact levels defined for it.

Potential emissions for VOC are above the 40 TPY significance threshold for the pollutant ozone. The applicant presented the potential increases to the Department, but based on the options available to predict potential impacts associated with the emissions and formation of ozone, the Department has determined that the use of regional models which incorporate the complex chemical mechanisms for predicting ozone formation are not feasible for this project.

The applicant's initial Class II PM₁₀, SO₂ and CO analyses revealed significant impacts in the area surrounding the proposed facility; therefore, full impact Class II AAQS analyses were conducted for PM₁₀, SO₂ and CO, and PSD Class II increment analyses were conducted for PM₁₀ and SO₂. Because the project's impact for PM₁₀, SO₂, NO₂ and CO are less than the de minimis monitoring concentration, pre-construction monitoring was not required for this project.

The applicant's initial Class I PM₁₀, SO₂, and NO₂ analyses revealed no significant impact in the Everglades National Park (ENP). Therefore no additional Class I increment modeling was required.

Based on the preceding discussion, the air quality analyses required by the PSD regulations for this project were the following: a significant impact analysis for PM₁₀, SO₂, NO₂, and CO in the surrounding Class II Area and the Class I ENP; a Class II AAQS analysis for PM₁₀, SO₂ and CO; a Class II PSD increment analysis for PM₁₀ and SO₂; and an analysis of impacts on soils, vegetation, visibility, and of growth-related air quality modeling impacts.

Based on these required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or

significantly contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A more detailed discussion of the required analyses follows.

3.2 MODELS AND METEOROLOGICAL DATA USED IN THE AIR QUALITY ANALYSIS

PSD Class II Area

The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project in the surrounding Class II Area. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. It incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfied the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from National Weather Service (NWS) stations at Fort Myers, Florida (surface data) and Ruskin, Florida (upper air data). The 5-year period of meteorological data was from 1987 through 1991. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

PSD Class I Area

The California Puff (CALPUFF) dispersion model was used to evaluate the pollutant emissions from the proposed project in the Everglades National Park. Meteorological data used in this model was 1987-1991 Fort Myers, Florida/Tampa, Florida ISCST3 data which was enhanced for CALPUFF. CALPUFF is a non-steady state, Lagrangian, long-range transport model that incorporates Gaussian puff dispersion algorithms. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, line, area, and volume sources. The CALPUFF model has the capability to treat time-varying sources. It is also suitable for modeling domains from tens of meters to hundreds of kilometers, and has mechanisms to handle rough or complex terrain situations. Finally, the CALPUFF model is applicable for inert pollutants as well as pollutants that are subject to linear removal and chemical conversion mechanisms.

3.3 FULL IMPACT MODELING

Full impact modeling is modeling that combines the impact of the proposed project along with the impact of other major sources located within the vicinity of the project. The results of this modeling are compared to the applicable AAQS and PSD increments.

TECHNICAL EVALUATION AND BACT DETERMINATION

AAQS Analysis for PM₁₀, SO₂ and CO

The AAQS represents the maximum concentration of a pollutant that ambient air may contain. Atmospheric dispersion modeling, as previously described, was performed to quantify the amount of PM₁₀, SO₂ and CO in the ambient air surrounding the facility. To make the modeling conservative, the maximum predicted impact was added to a background concentration that was observed at a local air monitor. The results of this analysis are shown in the table below. Maximum PM₁₀, SO₂ and CO concentrations predicted for the proposed project did not show any impacts greater than the AAQS for all corresponding averaging periods. Therefore, the proposed project will not contribute to a violation of the AAQS for PM₁₀, SO₂ and CO, and may be permitted by Department rules.

AAQS ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m ³)	Background Conc. (ug/m ³)	Total Predicted Impact (ug/m ³)	AAQS (ug/m ³)	Impact Greater Than AAQS?
PM ₁₀	Annual	2	23	25	50	NO
	24-hour	22	38	60	150	NO
CO	8-hour	871	3333	4204	10000	NO
	1-hour	2025	5555	7580	40000	NO
SO ₂	Annual	6	5	11	60	NO
	24-hour	78	13	91	260	NO
	3-hour	168	47	215	1300	NO

PSD Class II Increment Analysis

The PSD increment represents the amount that sources constructed after the PSD Baseline Dates, (February 8, 1988 for NO₂ and January 6, 1975 for PM₁₀ and SO₂), may increase ambient ground level concentrations of a pollutant. Atmospheric dispersion modeling was performed to quantify the amount of PSD increment consumed in the Class II Area surrounding the facility for PM₁₀ and SO₂. The results of this analysis are shown in the table below. Maximum PM₁₀ and SO₂ concentrations predicted for the proposed project at receptors in the Class II Area do not show any impacts greater than the PSD Class II increments for the corresponding averaging periods. Therefore, the proposed project will not contribute to a violation of the Class II increment for PM₁₀ or SO₂, and may be permitted by Department rules.

PSD CLASS II INCREMENT ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m ³)	Allowable Increment (ug/m ³)	Impact Greater Than Allowable Increment?
PM ₁₀	Annual	1	17	NO
	24-hour	22	30	NO
SO ₂	Annual	3	20	NO
	24-hour	77	91	NO
	3-hour	168	512	NO

3.4 ADDITIONAL IMPACTS ANALYSIS

Impact On Soils, Vegetation, And Wildlife


The maximum ground-level concentrations predicted to occur for all regulated pollutants, as a result of the proposed project, including background concentrations and all other nearby sources, will be less than the respective ambient air quality standard (AAQS). The project impacts are less than the AAQS for all regulated pollutants, and less than the applicable allowable increments for all regulated pollutants.

Florida Department of
Environmental Protection

Memorandum

TO: Howard L. Rhodes

THRU: Clair Fancy
Al Linero

FROM: Joe Kahn 

DATE: December 1, 2000

SUBJECT: Southern Gardens Citrus Processing Corp.
0510015-007-AC, PSD-FL-299

Attached for approval and signature is the final PSD permit for Southern Gardens Citrus Processing Corp. This project allows the addition of three juice extractors at Southern Gardens' existing facility. The permit also relaxes a throughput limit on three existing d-limonene tanks from 500,000 to 1 million gallons in any consecutive 12 month period, and removes the existing emission limits for these tanks and four fuel oil storage tanks. The existing limits on fuel oil throughput are not changed by this permit. The permit imposes limits on fruit throughput and requires a minimum level of 50% oil recovery. The only emissions sources undergoing modification for this project are the three d-limonene tanks, but because VOC emissions from these tanks are inherently small there are no cost-effective add-on controls. BACT is proper maintenance of the tanks and not painting the tanks a dark color.

The Public Notice requirements have been met on October 18, 2000 by publishing in the Clewiston News. EPA Region 4 commented, particularly about the ambient impact evaluation. The applicant provided additional modeling files in response to EPA's comments, and these comments have been resolved as noted in the Determination document.

I recommend your approval and signature.

Day 90 is December 30, 2000.

Attachments

/jk

TECHNICAL EVALUATION AND BACT DETERMINATION

Because the AAQS are designed to protect both the public health and welfare, it is reasonable to assume the impacts on soils, vegetation, and wildlife will be minimal or insignificant.

Impact On Visibility

Due to the close proximity of this project to the ENP Class I Area, a regional haze analysis was performed. The CALPUFF dispersion model was recommended by the Department of the Interior for use in this regional haze analysis because of its ability to handle atmospheric chemical transformations as well as wet/dry deposition. The results indicate that the proposed project will not have an adverse impact on visibility and regional haze in the ENP.

Growth-Related Air Quality Impacts

There will be no significant short-term increase in the labor force to construct the project which will not result in significant commercial and residential growth in the vicinity of the project.

4 BACT DETERMINATION REQUESTED BY THE APPLICANT

The applicant proposed that BACT does not apply to this project because the process components (three juice extractors) undergoing physical change (installation) have little associated emissions. The applicant did not request the relaxation of any current federally enforceable production or process limits on the existing emissions units, except for three existing d-limonene storage tanks. The applicant did not propose BACT for the existing tanks. The applicant acknowledges that the other existing emissions units—steam boilers, peel dryer and pellet coolers—may experience an increase in actual hours of operation or production rates as a result of this project, but previous permits either imposed no limit on these parameters or the existing permitted capacities are sufficient to accommodate the change. The applicant proposed that because these emissions units will not be modified (undergo a physical change or change in the method of operation as defined by federal rules), BACT will not apply to these units.

5 BACT ANALYSIS AND DEPARTMENT'S DETERMINATION - JUICE EXTRACTORS

The BACT evaluation should be performed for each emissions unit and pollutant under consideration. For this project the PSD pollutants of concern are PM/PM₁₀, SO₂, NO_x, CO, and VOC. The project results in a net emissions increase greater than the significant emission rates for PM/PM₁₀, SO₂, NO_x, CO and VOC because of collateral emissions increases from existing permitted emissions units. However, for this project, no emissions unit is being constructed. The only modification requested is a relaxation on throughput and removal of the VOC emissions limit for three 24,000 gallon storage tanks for d-limonene, a byproduct of the citrus oil recovery process. No detailed BACT evaluation was required for the tanks. This is discussed further below.

The process equipment to be installed for this project are three juice extractors. Juice extractors derive citrus juice from washed and graded citrus fruits by mechanically squeezing or reaming the juice out of whole or halved fruits. Other products of this operation are peel oil, pulp, peel, rag and seeds. The juice is further processed by other equipment at the facility to produce pasteurized single-strength juice or frozen concentrated juice. The peel, pulp rag and seeds are further processed by other equipment at the facility into other products and byproducts, including boxed pulp, pulp wash, animal feed and citrus molasses.

The Department considers juice extractors at citrus processing facilities to be process equipment, not emissions units. There is no stack or emission point associated with the juice extraction process, and the process equipment is not designed or intended to emit air pollutants. The juice extraction process and subsequent conveying of its products are enclosed and provide little opportunity for fugitive emissions of

TECHNICAL EVALUATION AND BACT DETERMINATION

the only pollutant potentially emitted, VOC from citrus oil. VOC may escape the process equipment in small amounts that are fugitive in nature and not directly quantifiable; the odor of citrus fruit is typically present in the extractor room of citrus processing facilities, which would indicate the presence of aromatic oils in the air. However, this may also be the result of fruit washing, grading and conveying prior to the fruit entering the extractors. The Department believes the potential emissions of VOCs from the extractors are very low, although there is no data quantifying these emissions. Control of these emissions is already accomplished by the enclosures intrinsic to the juice extractors, and further control is not reasonable. Although this project results in a physical change to the facility by the addition of the three juice extractors, the applicant is not constructing emissions units. The applicant requested the relaxation of current federally enforceable throughput limits for three existing 24,000 gallon d-limonene storage tanks, from 500,000 gallons to 1,000,000 gallons per year; and removal of the existing VOC emissions limit of 3636.8 pounds per year (1.82 TPY). The existing tanks are enclosed, maintained in good condition, and painted a light color. Because potential emissions of VOC from the tanks are inherently small (future potential emissions are 2.49 TPY per the TANKS model), there are no add-on control technologies available to reduce emissions further in a cost effective manner, and the Department is not requiring a more detailed BACT analysis or installation of control technology for VOC emissions from the tanks. The Department is requiring that the tanks be maintained in good condition and not painted a dark color as BACT. No other existing emissions units are undergoing construction or modification, as defined by Department rule. Since BACT applies only to those emissions units that undergo construction or modification, BACT does not apply to any of the other emissions units at the facility for this project.

The permit allows the installation of the juice extractors, but imposes facility-wide limitations on citrus fruit processing capacity and citrus oil recovery of the facility to limit potential emissions from the facility's existing emissions units, and also imposes specific requirements to limit potential emissions of particulate matter from the peel dryer and pellet coolers to conform to the assumptions used in performing impact modeling which provide for PSD increment values for PM₁₀ to not be exceeded. The permit allows the requested change in the annual throughput limit of d-limonene for the three existing storage tanks from 500,000 gallons to 1,000,000 gallons per consecutive 12 month period. The permit removes the existing VOC emissions limit from these tanks because the original limits were not imposed to avoid any regulatory requirement, and there was no compliance requirement associated with the emission limits other than maintaining throughput records. The four existing fuel oil storage tanks, which are included with the d-limonene tanks in emissions unit 006, were previously limited to total VOC emissions of 136.9 pounds per year. Although not specifically requested by the applicant, the Department removed these limits as well in this permit; existing fuel oil throughput limits are not changed by this permit so potential emissions will not increase. Emissions from the tanks will continue to be tracked as required by the Department's annual operating report requirements. No NSPS requirements for the storage tanks are changed by this permit. This permit does not change any limit imposed by previous permits for the steam generating units or lime silo at the facility.

In addition to the information submitted by the applicant in its application and that information mentioned above, the Department may rely upon other available information in making its BACT determination. For this project, the Department also relied upon its own interpretation of its rules, to which this source is subject. Although the Department believes that its rules and not federal rules are the pertinent rules for this review, the Department also reviewed EPA's guidance regarding the application of BACT and debottlenecking. The Department's BACT determination documented above is based on this information and the informed judgement of the Department.

6 MACT DETERMINATION

As discussed in Section I of the permit, although the applicant indicated that the facility is a major source of HAP emissions, this facility is not subject to a case-by-case MACT determination for control of emissions of HAPs. The applicant is not required to provide, and did not provide, estimated annual potential emissions of regulated hazardous air pollutants (HAPs).

Rule 62-204.800(10)(d)2, F.A.C., generally requires a MACT review for all major sources of HAPs that are to be constructed or reconstructed. In this case, no source of HAPs is proposed to be constructed or reconstructed, so this project is not subject to a case-by-case MACT determination.

7 EXCESS EMISSIONS AND COMPLIANCE REQUIREMENTS

Excess emissions are not changed or limited by this permit except for the pellet coolers, emissions units 004, 005 and 009, which are allowed no permitted excess emissions for startup and shutdown.

The permit imposes limitations on process rates and emissions to limit potential emissions to those levels described in the permit upon which impact analyses were conducted. Specific requirements and compliance methods are detailed in Sections II and III of the permit.

8 PRELIMINARY DETERMINATION

Based on the foregoing technical evaluation of the application submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations. The Department's preliminary determination is to issue the draft permit to allow installation of three additional juice extractors, subject to the terms and conditions of the draft permit.

9 FINAL DETERMINATION

The Department distributed the intent to issue on October 11, 2000. The Public Notice of Intent to Issue Air Construction Permit was published in the Clewiston News on October 18, 2000.

No comments were received by the Department from the public.

Comments were received from EPA Region 4 by letter dated November 16, 2000. Related to review of the technical documents, EPA commented regarding the years selected for the netting analysis, the bases for exemption from ozone and PM₁₀ preconstruction ambient monitoring, and the need for including wet peel accepted from offsite sources in the fruit throughput limitation. The first comment requires no response, the second which concerned preconstruction monitoring requirements was addressed as part of the Department's further review of the ambient impact analyses, and the third was addressed by adding clarifying language to specific condition 28 of Section II of the permit that reads:

Any wet peel received from any offsite source, expressed as the equivalent boxes of fruit derived from production records of the offsite source, shall be included in the throughput limitation of specific condition 27, above.

Related to review of the air quality impact assessment, EPA commented on the emission rates used in the modeling analyses, the site boundary, the increment receptor spacing and need for refined modeling, the operational hours assumed, and the Class I analyses. These comments are addressed below as part of the Department's further review of the ambient impact analyses.

TECHNICAL EVALUATION AND BACT DETERMINATION

In response to EPA's comments, the Department requested that the applicant provide further supporting information and the Department performed further review of the ambient impact analyses, including this additional supporting information received December 1, 2000. The Department concluded that the terms of the draft permit are acceptable. The applicant provided revised modeling impacts for all pollutants in the PSD Class II area. The results of the applicant's revised modeling are shown in the following two tables and show very small changes from previously modeled values reported in the Department's Technical Evaluation and Preliminary Determination (TEPD):

AAQS ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m ³)	Background Conc. (ug/m ³)	Total Predicted Impact (ug/m ³)	AAQS (ug/m ³)	Impact Greater Than AAQS?	Change (ug/m ³)
PM ₁₀	Annual	3	23	26	50	NO	1
	24-hour	24	38	62	150	NO	2
CO	8-hour	1029	3333	4362	10000	NO	158
	1-hour	2115	5555	7670	40000	NO	90
SO ₂	Annual	6	5	11	60	NO	0
	24-hour	78	13	91	260	NO	0
	3-hour	168	47	215	1300	NO	0

PSD CLASS II INCREMENT ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m ³)	Allowable Increment (ug/m ³)	Impact Greater Than Allowable Increment?	Change (ug/m ³)
PM ₁₀	Annual	2	17	NO	1
	24-hour	24	30	NO	2
SO ₂	Annual	3	20	NO	0
	24-hour	77	91	NO	0
	3-hour	169	512	NO	1

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review unless otherwise exempted or satisfied. The monitoring requirement may be satisfied by using existing representative monitoring data, if available. An exemption to the monitoring requirement may be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimus concentration. EPA commented on the basis of the preconstruction ambient monitoring exemptions for PM10 and ozone. The project's PM10 impact was incorrectly reported as less than the de minimus concentration and the project's ozone impacts (based on VOC emissions) were not addressed in the Department's TEPD. Neither pollutant was exempted from preconstruction ambient monitoring on the basis of less than de minimus impacts. However the preconstruction monitoring requirements for these pollutants were satisfied by using existing representative monitoring data.

Comments were received from the applicant's consultant, Golder Associates Inc., by letter dated November 16, 2000. The consultant requested minor changes to the permit language to clarify requirements and correct a typographical error. The Department generally made the changes in accordance with the applicant's request. In this letter, the applicant's consultant proposed methodologies for performing material balances required by the permit. Pursuant to the requirements of the permit, the Department will respond to these proposals through a separate letter.

TECHNICAL EVALUATION AND BACT DETERMINATION

The Department determined that one minor change was required to the permit text to clarify requirements of specific condition 8 of Section II. The Department revised this paragraph to note that revision of the Title V permit was required to also reflect new limitations on the VOC tanks.

The above changes are not significant enough to require a new public notice.

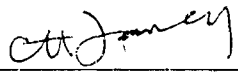
The final action of the Department is to issue the permit with the changes described above.

DETAILS OF THIS ANALYSIS MAY BE OBTAINED BY CONTACTING:

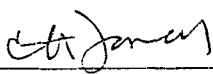
Joseph Kahn, P.E.
Department of Environmental Protection
Bureau of Air Regulation
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114

Recommended By:

Approved By:



C. H. Farcy, P.E., Chief
Bureau of Air Regulation



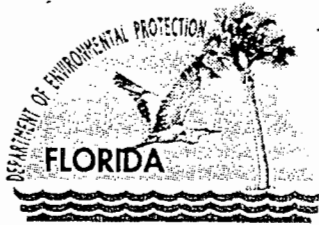
for Howard L. Rhodes, Director
Division of Air Resources Management

12/1/00

Date:

12/1/00

Date:



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

PERMITTEE

Southern Gardens Citrus Processing Corp.
PO Box 130
Clewiston, Florida 33440

Permit No.	0510015-007-AC, PSD-FL-299
Project	Addition of 3 Juice Extractors
SIC No.	2037
Expires:	November 30, 2001

Authorized Representative:

Tristan Chapman, VP and General Manager

PROJECT AND LOCATION

This permit authorizes Southern Gardens Citrus Processing Corp. to install three additional citrus juice extractors at its existing citrus processing facility, raising the total number of extractors to thirty nine.

This facility is located at 755 County Road 833, Clewiston, Hendry County. The UTM coordinates are: Zone 17; 487.5 km E and 2958.0 km N.

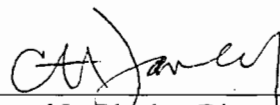
STATEMENT OF BASIS

This construction/PSD permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to make physical changes in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

APPENDICES

The attached appendices are a part of this permit:

Appendix B BACT Determination Summary
Appendix GC General Permit Conditions


Howard L. Rhodes, Director
Division of Air Resources
Management

AIR CONSTRUCTION PERMIT
SECTION I. FACILITY INFORMATION

FACILITY DESCRIPTION, PROJECT DETAILS AND RULE APPLICABILITY

This facility consists of an existing citrus processing facility that extracts juice from whole citrus fruit to produce single-strength and frozen concentrated juices and byproducts of juice production such as citrus oils, citrus molasses and animal feed.

The applicant proposed in this project to install three additional juice extractors, bringing the total number of juice extractors at the facility to thirty nine. This will raise the annual processing capacity of the facility to 20 million boxes of citrus fruit per year (based on 90 pounds of oranges or 85 pounds of grapefruit per box).

The emissions increases associated with this project were estimated by the applicant as follows in tons per year:

Pollutant	Actual Emissions ¹	Potential Emissions ²	Net Increase	PSD Significance	Subject to PSD?
PM	17.1	115.3	98.2	25	Yes
PM ₁₀	14.8	113.2	98.4	15	Yes
SO ₂	41.3	266.7	225.4	40	Yes
NOx	25.1	102.3	77.2	40	Yes
CO	629 ³	2892 ³	2263	100	Yes
VOC	1189	2029 ³	840	40	Yes

¹ Actual emissions were estimated by the applicant for the 1998 and 1999 calendar years from annual operation reports.

² Potential emissions were estimated by the applicant given current permit limits. Potential emissions do not include standby units—boiler 4, operation of which is limited by existing permits, and pellet coolers 1 and 2, operation of which is limited by this permit.

³ VOC emissions are estimated by material balance, except for d-limonene tanks which are from TANKS model. The applicant assumed oil that is unaccounted for is destroyed in the dryer; this permit does not provide for destruction efficiency. Potential CO emissions are estimated to be 160% of VOC emissions based on limited data. Actual emissions were estimated using historic test data.

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, F.S., and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The existing facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment or unclassifiable for the criteria pollutants ozone, PM₁₀, carbon monoxide, SO₂, nitrogen dioxide and lead. This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant exceeds 100 tons per year (TPY). At this facility potential emissions of PM/PM₁₀, SO₂, NOx, CO and VOC exceed 100 TPY.

This facility is not within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 250 TPY for at least one criteria pollutant, the facility is also an existing Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). The net increase in emissions of PM/PM₁₀, SO₂, NOx, CO and VOC exceed the PSD significance levels of Table 212.400-2, F.A.C. Therefore the project is subject to PSD requirements of Rule 62-212.400, F.A.C., for these pollutants. The project results in these net emissions increases because of collateral emissions increases from existing permitted emissions units, rather than emissions

AIR CONSTRUCTION PERMIT
SECTION I. FACILITY INFORMATION

from the new juice extractors. The project is subject to a BACT determination for the three existing d-limonene storage tanks, as discussed in the Department's Technical Evaluation and BACT/MACT Determination. Briefly, although this project results in a physical change to the facility by the addition of the three juice extractors, the applicant is not constructing emissions units, and the applicant's requested relaxation of current federally enforceable limits on the existing d-limonene storage tanks does not result in a requirement to install control technology.

This permit allows the installation of the juice extractors, but imposes facility-wide limitations on citrus fruit processing capacity and citrus oil recovery of the facility to limit potential emissions from the facility's existing emissions units. These limits are established in Section II of this permit. This permit also imposes specific requirements to limit potential emissions of particulate matter from the peel dryer and pellet coolers to conform to the assumptions used in performing impact modeling which provide for PSD increment values for PM₁₀ to not be exceeded. These limits are established in Section III of this permit. The permit allows the requested change in the annual throughput limit of d-limonene for the three existing storage tanks from 500,000 gallons to 1,000,000 gallons per consecutive 12 month period. The permit removes the existing VOC emissions limit from these tanks and the four existing fuel oil storage tanks, which are included in emissions unit 006. No NSPS requirements for the storage tanks are changed by this permit. The fuel oil throughput limits of previous permits are not changed by this permit, so potential emissions from these tanks will not change. This permit does not change any limit imposed by previous permits for the steam generating units or lime silo at the facility.

The applicant stated that this facility is a major source of hazardous air pollutants (HAPs). This project is not subject to a case-by-case MACT determination, per Rule 62-204.800(10)(d)2, F.A.C., because it does not result in the construction or reconstruction of a major source of HAP emissions.

This project does not impose any requirements under the New Source Performance Standards, 40 CFR 60, or National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61 or 63.

REVIEWING AND PROCESS SCHEDULE

September 5, 2000	Received permit application and fee
September 5, 2000	Application complete
October 11, 2000	Distributed Notice of Intent to Issue and supporting documents
October 18, 2000	Notice of Intent published in the Clewiston News

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Permit application
- Department's Technical Evaluation and BACT Determination
- Department's Intent to Issue

AIR CONSTRUCTION PERMIT

SECTION II: FACILITY-WIDE SPECIFIC CONDITIONS

The following specific conditions apply to all emissions units at this facility addressed by this permit after installation of any or all of the three additional juice extractors. The throughput and oil recovery limitations shall apply to the facility as a whole. These conditions shall revise and supplement conditions imposed by previous permitting actions. Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, phone number 850/488-0114. All documents related to reports, tests, minor modifications and notifications shall be submitted to the Department's South District office at PO Box 2549, Fort Myers, Florida 33902-2549, and phone number 941-332-6975.
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Expiration: This air construction permit shall expire on November 30, 2001. The permittee, for good cause, may request that this construction/PSD permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C.]

PSD Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

extend the 18-month period upon a satisfactory showing that an extension is justified. [Rules 62-4.070(4), 62-4.210(2) & (3), and 62-210.300(1)(a), F.A.C.]

BACT Determination Review: In conjunction with extension of the 18 month periods to commence or continue construction, extension of the permit expiration date, or where construction is conducted in two or more phases, the permittee may be required to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for the source. [Rules 62-4.070(4), 62-4.210(2) & (3), 62-210.300(1)(a), and 62-212.400(6)(b), F.A.C.]

7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
8. Title V Operation Permit Revision Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit revision is required to reflect new limitations on emissions for the pellet coolers and limits on the VOC tanks. The owner or operator shall apply for a Title V operation permit at least ninety days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's South District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

EMISSION LIMITING STANDARDS

9. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)], F.A.C.]
10. Unconfined Emissions of Particulate Matter: [Rule 62-296.320(4)(c), F.A.C.]
 - (a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
 - (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
 - (c) Reasonable precautions for this facility include the following:
 - Paving and maintenance of roads, parking areas and yards.

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

- Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
- Use of high efficiency baghouse during loading of the lime silo.
- Use of high efficiency baghouse at the pellet load out area (if necessary).
- Enclosure or covering of conveyor systems.
- Limiting access to plant property by unnecessary vehicles.
- Enclosed warehouse for pellet storage.

(d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

11. General Pollutant Emission Limiting Standards: [Rule 62-296.320(1)(a)&(2), F.A.C.]

- (a) No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
- (b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Note: An objectionable odor is defined in Rule 62-210.200(198), F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.]

OPERATIONAL REQUIREMENTS

12. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's district office and, if applicable, appropriate local program. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]
13. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]
14. Excess Emissions: Except for the pellet coolers, emissions units 004, 005 and 009, this permit does not change any authorization for excess emissions provided by other Department permits. This permit specifically limits periods of excess emissions for the pellet coolers. Excess emissions are not permitted by this permit for the pellet coolers, emissions units 004, 005 and 009, for any duration for startup and shutdown. [Rule 62-210.700(5), F.A.C.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

15. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
16. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
17. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
18. Test Procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C. [Rule 62-297.310(4), F.A.C.]
19. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]
 - (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
 - (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
20. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. [Rule 62-297.310(6), F.A.C.]

21. Test Notification: The owner or operator shall notify the Department's district office and, if applicable, appropriate local program, at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9., F.A.C.]
22. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

23. Duration of Record Keeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]
24. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
25. Excess Emissions Report: In case of excess emissions resulting from malfunction, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rules 62-4.130 and 62-210.700(6), F.A.C.]
26. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

South District office and, if applicable, the appropriate local program by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

27. Fruit Throughput Limited: The owner or operator shall not process more than 20.0 million boxes of citrus fruit in any consecutive 12 month period. For purposes of this permit, a box of citrus fruit shall be defined to contain 90 pounds of oranges or 85 pounds of grapefruit. The owner or operator shall make and maintain monthly and rolling 12 month records of fruit processing rates to demonstrate compliance with this limitation. Such records shall be made from daily processing records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C.]
28. Minimum Oil Recovery Required: The owner or operator shall recover a minimum of 50.0 percent of oil from citrus fruits processed during each consecutive 12 months of operation, as determined by the following methodology.

Measurement of recovery of oil from citrus fruits processed shall be by material balance using the measured oil in the incoming fruit, divided into the sum of the oil remaining in juice, the cold press oil recovered, d-limonene recovered, and oil remaining in the dried pellets, expressed as a percentage. Alternatively, the material balance may use the measured oil in the incoming fruit divided into the oil measured remaining in the pressed peel prior to introduction into the feed mill dryers, in which case the decimal result shall be subtracted from the numeral 1, and added to the decimal result of the measured oil in the incoming fruit divided into the oil measured remaining in the dried pellets, with the resulting sum expressed as a percentage. Measurement of recovery of oil shall be made each operational day and averaged over the days of facility operation during each month. The monthly averages shall be averaged to calculate the consecutive 12 month oil recovery. Monthly records shall be completed no later than the 10th day of each following month. The owner or operator shall elect to use one of the above material balance methods and shall not change methods without approval from the Department's Bureau of Air Regulation.

The owner or operator may accept wet peel from offsite sources for drying, provided that the owner or operator receives sufficient recorded information from the offsite source to measure available oil and oil recovery at the offsite source, and accounts for those values in determining compliance with the limitation of this paragraph. Any wet peel received from any offsite source, expressed as the equivalent boxes of fruit derived from production records of the offsite source, shall be included in the throughput limitation of specific condition 27, above. Wet peel not processed through the peel dryer shall be excluded from the oil recovery calculations. Methodologies for determining oil contents shall be submitted by the owner or operator to the Department's Bureau of Air Regulation for approval prior to beginning record keeping pursuant to this condition. [Rule 62-4.070(3), F.A.C.]

AIR CONSTRUCTION PERMIT
SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection A. The following specific conditions apply to the following emissions units after installation of any or all of the three additional juice extractors. These conditions shall revise and supplement conditions imposed by previous permitting actions. Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
004	Pellet cooler number 1, venting through cyclone 1
005	Pellet cooler number 2, venting through cyclone 2
009	Pellet cooler number 3, venting through cyclone 1

[Note: These emissions units are subject to the requirements of the state rules as indicated in this permit.]

OPERATIONAL REQUIREMENTS

1. Hours of Operation: These emissions units shall operate no more than 6000 hours during any consecutive 12 month period. [Rules 62-4.070(3), 62-210.200 and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]
2. Operation Limited: The owner or operator shall only operate either: pellet coolers 1 and 2 together (emissions units 004 and 005), or pellet cooler 3 alone (emissions unit 009). [Rules 62-4.070(3) and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

3. Particulate Emissions Limited: Emissions of particulate matter (PM/PM₁₀) from pellet coolers 1 and 2 together (emissions units 004 and 005), or pellet cooler 3 alone (emissions unit 009), shall not exceed 5.0 pounds per hour. [Rules 62-4.070(3) and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

4. Emission Tests Required: The owner or operator shall demonstrate compliance with the particulate emissions limit of this section by testing the emissions units initially and prior to renewal of each operation permit using Method 5 of 40 CFR 60 Appendix A, assuming that all particulate matter is PM₁₀. [Rules 62-4.070(3) and 62-297.310, F.A.C., required to monitor compliance with the limitation on potential to emit]

REPORTING AND RECORD KEEPING REQUIREMENTS

5. Records of Operation Required: The owner or operator shall make and maintain records of hours of operation of each pellet cooler in units of hours per month and hours per consecutive 12 month period, to demonstrate compliance with the limit of condition 1 of this section. The records shall also detail which pellet cooler(s) were in operation during the operating period recorded, to demonstrate compliance with the requirements of condition 2 of this section. Records shall be made from daily operation records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C., required to monitor compliance with the limitation on potential to emit]

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection B. The following specific conditions apply to the following emissions unit after installation of any or all of the three additional juice extractors. These conditions shall revise and supplement conditions imposed by previous permitting actions. Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
003	Citrus feed mill peel dryer/waste heat evaporator

[Note: This emissions unit is subject to the requirements of the state rules as indicated in this permit. This permit does not change the particulate emission limit of Rule 62-296.320(4)(a), F.A.C., (process weight table) or annual compliance testing frequency established by previous permits. This permit limits the input of pressed (wet) peel in order to limit potential emissions of PM/PM₁₀ to 32.05 pounds per hour and 96.15 tons per year. All PM is assumed to be PM₁₀.]

OPERATIONAL REQUIREMENTS

1. Hours of Operation: This emissions unit shall operate no more than 6000 hours during any consecutive 12 month period. [Rules 62-4.070(3), 62-210.200 and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]
2. Operation Limited: The rate of pressed peel input to the dryer shall not exceed 47 tons per hour, including the weight of moisture in the pressed peel, on a daily average basis. [Rules 62-4.070(3) and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]

REPORTING AND RECORD KEEPING REQUIREMENTS

3. Records of Operating Hours Required: The owner or operator shall make and maintain records of hours of operation of this emissions unit in units of hours per month and hours per consecutive 12 month period, to demonstrate compliance with the limit of condition 1 of this section. Records shall be made from daily operation records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C., required to monitor compliance with the limitation on potential to emit]
4. Records of Input Rate Required: The owner or operator shall make and maintain records of the average rate of pressed peel input to the dryer, to demonstrate compliance with the requirements of condition 2 of this section. Records shall be made each day by dividing that day's total input rate of peel by that day's hours of operation of the dryer. [Rule 62-4.070(3), F.A.C., required to monitor compliance with the limitation on potential to emit]
5. Records of Operation of Dryer Bypass Stack Required: The owner or operator shall make records of the number of hours each day that the dryer is operated with emissions directed in total or in part through the bypass stack. The number of hours of bypass stack operation recorded each calendar quarter shall be reported to the South District office no later than the 10th day following each calendar quarter. [Rule 62-4.070(3), F.A.C.]

[Note: Excess emissions are limited by Rule 62-210.700, F.A.C., and previous Department permits. Those limitations are not changed by this permit.]

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection C. The following specific conditions apply to the following emissions unit after installation of any or all of the three additional juice extractors. These conditions shall revise and supplement conditions imposed by previous permitting actions. Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
006	Seven volatile organic liquid storage tanks

[Note: This emissions unit is subject to the requirements of the state rules as indicated in this permit. Although subject to a BACT determination, no add-on control technology for the existing d-limonene storage tanks is required by this permit. This permit changes the throughput limit for d-limonene for three existing 24,000 gallon storage tanks from 500,000 gallons to 1,000,000 gallons per consecutive 12 month period. This permit also removes any emission limit for VOC from these d-limonene tanks and the four existing fuel oil storage tanks. This permit does not change any NSPS requirement imposed by previous permits and does not change any throughput limit for the fuel oil storage tanks imposed by previous permits. Potential emissions from the d-limonene tanks is 2.49 tons per year based on modeling conducted with EPA's TANKS model. Because throughput limits for the fuel oil storage tanks are not changed by this permit, potential emissions from those tanks will not change.]

OPERATIONAL REQUIREMENTS

1. d-limonene Tank Operation Requirements: The rate of throughput of d-limonene in all three existing tanks combined shall not exceed one million gallons in any consecutive 12 month period. No liquid other than d-limonene shall be put through the existing three tanks, and the tanks shall be maintained in good condition, and shall not be painted a dark color. [Rules 62-4.070(3) and 62-212.400, F.A.C., BACT and limitation on potential to emit]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

2. VOC Emissions No Longer Limited: Emissions of VOC from the three existing d-limonene storage tanks and the four existing fuel oil storage tanks shall not be limited. [Rule 62-4.070(3) and applicant request]

REPORTING AND RECORD KEEPING REQUIREMENTS

3. Records of Operation Required: The owner or operator shall make and maintain records of throughput of d-limonene in units of gallons per month and gallons per consecutive 12 month period, to demonstrate compliance with the throughput limit of condition 1 of this section. Records shall be made from daily operation records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C.]

APPENDIX B. BACT DETERMINATION SUMMARY

A complete discussion of the Department's technical evaluation and BACT determination is included in the document titled *Technical Evaluation and BACT Determination*. Following is a summary of the Department's control technology determinations pursuant to Rules 62-212.400, F.A.C., (BACT). None of the emissions units are subject to Rule 62-204.800(10)(d)2, F.A.C., (case-by-case MACT).

Emissions Unit	Pollutant	BACT Requirements
006, three d-limonene storage tanks	VOC	Maintain tanks in good condition and do not paint a dark color

Note: The fuel oil storage tanks of emissions units 006 are not subject to BACT.

The specific requirements associated with the BACT requirements are shown in Subsection C of Section III of the permit.

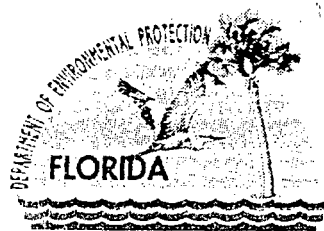
APPENDIX GC
GENERAL PERMIT CONDITIONS [RULE 62-4.160, F.A.C.]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

APPENDIX GC
GENERAL PERMIT CONDITIONS [RULE 62-4.160, F.A.C.]

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology (X);
 - (b) Determination of Prevention of Significant Deterioration (X); and
 - (c) Compliance with New Source Performance Standards ().
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

December 1, 2000

Mr. Tristan Chapman
VP and General Manager
Southern Gardens Citrus Processing Corp.
PO Box 130
Clewiston, Florida 33440

Re: Methodologies for Citrus Oil Material Balance and Dryer Throughput Material Balance
Permit PSD-FL-299, 0510015-007-AC

Dear Mr. Chapman:

We have reviewed a letter dated November 16, 2000 from David Buff, P.E., of Golder Associates Inc. proposing methodologies for determining oil contents pursuant to specific condition 28 in Section II of permit number PSD-FL-299. Mr. Buff proposed measuring the oil contents of incoming fruit and dried pellets on a twice per week basis, and using the average of those two results to determine the daily mass of oil in those materials until the next week's average is determined. The oil contents will be determined using the Braddock sample preparation method and the Scott Oil method, as described in the attachment to that letter. The amount of dried pellets produced each day will be estimated from the measured weight of pellets loaded out each day from the pellet warehouse. We agree with the sampling and analysis methods proposed with the exception of the sampling frequency of incoming fruit. We believe that the oil content of incoming fruit should be determined on a daily basis, at least for the first fruit season. After this first season, Southern Gardens may compare the weekly averages obtained from daily measurements with the averages that would be obtained using two specific days each week, and if there is no significant difference, may propose to reduce the frequency to two days per week for the subsequent processing seasons. Approval of that change would be by letter from the Department's Division of Air Resource Management.

The letter also proposed a material balance to demonstrate compliance with the daily average peel dryer throughput limitation of specific condition 2 and averaging requirement of specific condition 4 of Section III, Subsection B. Daily throughput of pressed peel would be estimated by measuring the dried pellets loaded out each day from the pellet warehouse, and relating pellet production to pressed peel throughput using the moisture contents of the pressed peel and dried pellets measured on a daily basis. This methodology appears satisfactory.

Please contact me at 850-921-9519 if you have any questions about the above.

Sincerely,

Joseph Kahn, P.E.
New Source Review Section

/jk

cc: Ron Blackburn, DEP SD (w/ copy of Golder letter)
David Buff, P.E., Golder Associates Inc.

"More Protection. Less Process"

Printed on recycled paper.

Golder Associates Inc.

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

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**Golder
Associates**

DEC 01 2000

November 30, 2000

BUREAU OF AIR REGULATION

0037568A/02

Mr. Cleveland Holladay
Bureau of Air Quality Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: REVISED MODELING ANALYSIS FOR SOUTHERN GARDENS CITRUS

Dear Cleve:

This purpose of this letter is to address the air modeling issues for this facility that were mentioned in the second part of U.S. Environmental Protection Agency's (EPA's) letter to A.A. Linero dated November 15, 2000, and Golder received a copy.

Response to Questions 1 and 2.

The permit application emission rate tables are the same as those provided in Section 2.0 of the Prevention of Significant Deterioration (PSD) report. The maximum emission rates used in the air modeling analysis will match the emission rates provided in the Section 2.0 tables. Table 6-2 has some incorrect PM₁₀ and CO emission rates for both the peel dryer/WHE and the pellet coolers. For the dryer, the future maximum PM₁₀ emission rate should be 4.04 grams per second (g/s), which matches Table 2-4. The CO emission rate should be 191.81 g/s, also matching the CO emission rate in Table 2-4. For the pellet coolers, the PM₁₀ emission rate should be 0.63 g/s, matching Table 2-5. The air modeling analysis used the correct emission rates. Though not used in the air modeling analysis, some of the annual [tons per year (TPY)] emission rates were also corrected to match the values presented in Section 2.0 and the permit application.

2c. The dryer and pellet coolers future operation was extended from 7 to 9 months in all the air modeling analyses to account for up to 6,000 hours of operation for those units. This affected all of the air modeling files and as a result, all of these files were rerun. As a result of this change, the results in Tables 7-1, 7-3, 7-4, and 7-5 were also revised and are attached. The revised air modeling files have been electronically transferred separately to the Department. It should be noted that Table 7-2 did not require updating because the CALPUFF modeling analysis assumed full year operation for all modeled sources.

3. A figure of the fenced property line is attached. The property is entirely fenced with a guard house at the entrance.

4. All refined maximum predicted impacts presented in the report were resolved to less than 100-meter (m) receptor spacing along the fence line and to 100 m or less resolution beyond the fence line.

5. Please see the response to Question 2c.

6a. Please see the response to Question 1.

6b. The emission rates used in the visibility modeling analysis are correct. The visibility results presented in Section 8.3.8 of the PSD report are not. The first sentence of the results section should read as follows: " The maximum predicted change in visibility of 1.04 percent (0.104 deciview) is well below the criteria of 5.0 percent (0.5 deciviews)".

Please feel free to contact me if you have additional questions or if I can be of further assistance.

Sincerely,

GOLDER ASSOCIATES, INC



Steven R. Marks, CCM
Senior Meteorologist

Attachments

SRM/nav

cc: David Buff, Golder

P:\Projects\2000\0037\0037568a Southern Gardens\02-srm submitted by e-mail\02tr.doc

Table 6-2. Short-term and Annual Emissions used in Modeling of SGPCPC

	Short-term Emissions				Long Term Emissions ^a				
	Current		Future		Current		Future		
	lb/hr	g/s	lb/hr	g/s	TPY	g/s	TPY	g/s	
	Boilers				Boilers				
PM ₁₀	0.79	0.10	0.79 ^b	0.10	PM ₁₀	0.71 ^e	0.02	2.04 ^b	0.06
SO ₂	54.64	6.88	54.64 ^b	6.88	SO ₂	20.79 ^e	0.60	140.69 ^b	4.04
NO _x	15.81	1.99	15.81 ^b	1.99	NO _x	14.28 ^e	0.41	40.78 ^b	1.17
CO	3.95	0.50	3.95 ^b	0.50	CO	3.57 ^e	0.10	10.20 ^b	0.29
	Peel Dryer/WHE				Peel Dryer/WHE				
PM ₁₀	11.30 ^f	1.42	32.05 ^c	4.04	PM ₁₀	13.73 ^e	0.39	96.2	2.77
SO ₂	19.62 ^f	2.47	42.00 ^c	5.29	SO ₂	20.49 ^e	0.59	126.0	3.62
NO _x	10.40 ^f	1.31	27.70 ^c	3.49	NO _x	10.87	0.31	61.5	1.77
CO	339.00 ^f	42.71	1522.30 ^c	191.81	CO	625.8	17.99	2882	82.84
	Pellet Coolers				Pellet Coolers				
PM ₁₀	0.19 ^f	0.02	5.00 ^d	0.63	PM ₁₀	0.36	0.01	15.00	0.43

^a From Table 2-2 Summary of Emissions, .

^b Table 2-6. Future Potential Emissions for Boiler Nos. 1, 2, 3, and 4.

^c Table 2-3. Future Potential Emissions for Citrus Feed Mill

^d Table 2-4. Future Potential Emissions for Citrus Pellet Mill

^e Actual emissions are an average of the 1998-1999 AOR emissions.

^f Data from 4/18/2000 stack test.

Table 7-1. Maximum Predicted Pollutant Impacts for the Project Only at SGPC

Averaging Time	Concentration ^a (ug/m ³)	Receptor Location ^b		Time Period (YYMMDDHH)	EPA Significant Impact Level (ug/m ³)
		Direction (degree)	Distance (m)		
SO₂					
Annual	0.4	190	1000	87123124	1
	0.4	240	1000	88123124	
	0.3	250	700	89123124	
	0.6	^c 244	900	90123124	
	0.5	^c 244	1000	91123124	
HIGH 24-Hour	5.9	180	1000	87100824	5
	5.7	190	1000	88020624	
	7.4	^c 320	1100	89101124	
	6.6	230	500	90051124	
	5.1	290	600	91052824	
HIGH 3-Hour	19.7	180	400	87032112	25
	18.5	230	500	88102612	
	20.3	290	500	89061815	
	19.2	302	535	90050212	
	20.2	210	500	91101015	
PM₁₀					
Annual	1.7	180	227	87123124	1
	1.7	120	359	88123124	
	1.6	120	359	89123124	
	1.5	240	482	90123124	
	1.4	240	482	91123124	
HIGH 24-Hour	25.8	170	229	87100824	5
	21.5	180	227	88020624	
	22.5	120	359	89103024	
	20.8	100	316	90011224	
	24.8	120	359	91122924	
NO_x					
Annual	0.4	190	1000	87123124	1
	0.4	240	1000	88123124	
	0.4	304	600	89123124	
	0.6	^c 242	800	90123124	
	0.5	240	1000	91123124	
CO					
HIGH 8-Hour	964.1	190	600	87100616	500
	956.8	240	600	88102816	
	963.6	320	1000	89101116	
	863.7	230	500	90051116	
	1151.9	200	500	91101016	
HIGH 1-Hour	1791.1	240	482	87102013	2,000
	1879.5	70	700	88102314	
	1907.7	312	610	89100614	
	1934.5	306	600	90101414	
	1895.6	300	524	91100414	

^a Based on 5-year meteorological record, Fort Myers/Ruskin, 1987-91

^b Relative to Southeast corner of Feed Mill building

^c Refined values

Note: YYMMDDHH = Year, Month, Day, Hour Ending
 High = Highest Concentration in 5 years.

Table 7-3. Maximum Predicted Pollutant Impacts Due to All Future Modeled Sources
AAQS Screening Analysis, SGCP

Averaging Time	Concentration ^a (ug/m ³)	Receptor Location ^b		Time Period (YYMMDDHH)
		Direction (degree)	Distance (m)	
<u>SO₂</u>				
Annual	4.4	110	331	87123124
	5.5	110	331	88123124
	4.9	110	331	89123124
	5.9	240	700	90123124
	5.4	240	700	91123124
HSH 24-Hour	50.4	110	331	87010124
	49.3	110	331	88050624
	43.7	110	331	89050224
	34.5	110	331	90102524
	77.9	110	331	91030424
HSH 3-Hour	143.3	110	331	87031012
	159.4	110	331	88070115
	151.2	100	316	89051118
	156.5	100	316	90011215
	167.7	110	331	91030415
<u>PM₁₀</u>				
Annual	2.3	180	227	87123124
	2.4	120	359	88123124
	2.3	120	359	89123124
	2.6	240	482	90123124
	2.4	240	482	91123124
HSH 24-Hour	24.4	170	229	87030424
	22	120	359	88050624
	18.7	120	359	89050624
	21.3	90	311	90010924
	21.3	120	359	91021124
<u>CO</u>				
H2H 8-Hour	786.1	180	500	87022316
	719.2	240	700	88032816
	753.5	190	500	89052716
	840.9	250	500	90032416
	1029.2	210	500	91101116
H2H 1-Hour	1971.4	360	2000	87120205
	2051.3	230	400	88052011
	2067.1	190	400	89061111
	1998.7	160	300	90061714
	2114.8	120	359	91063012

^a Based on 5-year meteorological record, Fort Myers/Ruskin, 1987-91

^b Relative to Southeast corner of Feed Mill building

Note: YYMMDDHH = Year, Month, Day, Hour Ending
H2H = Highest, 2nd-Highest Concentration in 5 years.

Table 7-4. Maximum Refined Impacts as Compared to AAQS, SGPCPC

Averaging Time/ Pollutant	Concentration (ug/m ³)			Receptor Location		Period Ending (YYMMDDHH)	Florida AAQS (ug/m ³)
	Total	Contributed from		Direction (degrees)	Distance (m)		
		Modeled	Background				
<u>SO₂</u>							
Annual	11.0	6.0	5	242	800	90123124	60
HSH 24-hour	90.9	77.9	13	110	331	91030424	260
HSH 3-hour	215	168	47	110	331	91030415	1,300
<u>PM₁₀</u>							
Annual	25.6	2.6	23	240	482	90123124	50
HSH 24-hour	62.4	24.4	38	170	229	87100324	150
<u>CO</u>							
H2H 8-Hour	4,362	1,029	3,333	210	500	91101116	10,000
H2H 1-Hour	7,670	2,115	5,555	120	359	91063012	40,000

Table 7-5. Maximum Predicted Pollutant Impacts Due to All Future Modeled Sources
 PSD Class II Screening Analysis, SGPCPC

Averaging Time	Concentration ^a (ug/m ³)	Receptor Location ^b		Time Period (YYMMDDHH)
		Direction (degree)	Distance (m)	
<u>SO₂</u>				
Annual	1.8	110	331	87123124
	2.6	110	331	88123124
	2.1	110	331	89123124
	2	240	700	90123124
	1.3	240	1000	91123124
HSH 24-Hour	49.2	110	331	87010124
	49.3	110	331	88050624
	43.2	110	331	89050224
	34.5	110	331	90102524
	77.2	110	331	91030424
HSH 3-Hour	143.3	110	331	87031012
	169.1	110	331	88040815
	151.2	100	316	89051118
	156.5	100	316	90011215
	167.7	110	331	91030415
<u>PM₁₀</u>				
Annual	1.7	180	227	87123124
	1.6	120	359	88123124
	1.4	120	359	89123124
	1.6	240	482	90123124
	1.5	240	482	91123124
HSH 24-Hour	24.4	170	229	87100324
	22.0	120	359	88050624
	18.7	120	359	89052524
	21.0	90	311	90061924
	21.3	120	359	91021124

^a Based on 5-year meteorological record, Fort Myers/Ruskin, 1987-91

^b Relative to Southeast corner of Feed Mill building

Note: YYMMDDHH = Year, Month, Day, Hour Ending
 H2H = Highest, 2nd-Highest Concentration in 5 years.

Golder Associates Inc.

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

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NOV 20 2000



November 16, 2000

BUREAU OF AIR REGULATION

0037568

Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL

Attention: Mr. Joe Kahn, P.E.

RE: SOUTHERN GARDENS CITRUS PROCESSING CORP. (SGCPC)
DRAFT PERMIT NO. 0510015-007-AC; PSD-FL-299
ADDITION OF THREE JUICE EXTRACTORS

Dear Mr. Kahn:

SGCPC has received the draft permit dated October 11, 2000, for the above referenced project from the Florida Department of Environmental Protection. The draft permit has been reviewed, and several comments and concerns have been identified. The comments are addressed below, in the same order as they appear in the draft permit. The comments also reflect my conversation with you of November 15 in regards to the draft permit.

SECTION II
Page 4 of 12

First paragraph, last sentence – in order to clarify that this permit only revises conditions imposed by this permit, revise per the similar statement in Section III, Subsection C (page 12 of 12):

“Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.”

Page 5 of 12

10(c). It is requested that the reasonable precautions specified be consistent with those in SGCPC's final Title V permit.

Page 6 of 12

14. Delete the word “neither” in the first sentence.

Page 9 of 12

28. At the present time, SGCPC elects to use the material balance method of oil recovery using the measured oil in the incoming fruit, divided into the sum of the oil remaining in the juice, the cold press oil recovered, d-limonene recovered, and oil remaining in the dried pellets, expressed as a percentage.

In the third sentence of the second paragraph, reword into two sentences, the first ending with "...facility operation during each month", and the second beginning with "The monthly averages..."

It is understood that the second sentence of the third paragraph, relating to wet peel not processed through the dryer, is consistent with the citrus industry legislation, which assigns oil recovery to the facility where the wet peel is processed through the dryer.

The third paragraph requires that the methodologies for determining oil contents be submitted for approval prior to beginning recordkeeping. Therefore, SGPCPC is submitting the proposed methodologies with this comment letter, as follows.

SGPCPC proposes to measure oil contents of incoming fruit and dried pellets on a twice per week basis. SGPCPC currently measures the available oil in the fruit on a twice per week basis, and this is believed to be adequate for purposes of the material balance. A representative sample of incoming fruit, just prior to the extractors, will be obtained for each sampling event. The results from the two samples will be averaged, and the average used to represent the available oil for that week.

A representative sample of dried pellets discharging from the pellet coolers will also be obtained twice per week. The oil content of the pellets is low, and is believed to not vary greatly from day to day. As a result, the material balance will not be affected greatly by increasing the accuracy with more frequent sampling. The cost of more frequent sampling is not justified.

Both fruit and dried pellet samples will be analyzed using the Braddock method of sample preparation and the Scott Oil method for determining oil content. Copies of these methods are attached.

The amount of dried pellets produced each day will be estimated by measuring the weight of pellets loaded out from the pellet warehouse. This provides a good measure of actual pellet production for the day, since SGPCPC has limited storage capacity, and pellets do not remain in storage long.

SECTION III – Subsection A

Page 10 of 12

First paragraph, last sentence – in order to clarify that this permit only revises conditions imposed by this permit, revise per the similar statement in Section III, Subsection C (page 12 of 12):

“Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.”

SECTION III – Subsection B

Page 11 of 12

First paragraph, last sentence – in order to clarify that this permit only revises conditions imposed by this permit, revise per the similar statement in Section III, Subsection C (page 12 of 12):

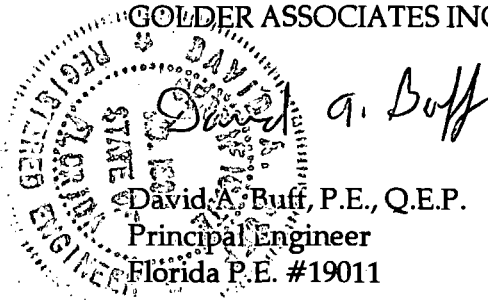
“Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.”

2, 4. SGCPC proposes to demonstrate compliance with the 47 TPH (daily average) limitation for the peel dryer by measuring the daily pellet production as described above for oil recovery (i.e., by measuring the weight of pellets loaded out from the pellet warehouse). Daily sampling and analysis for moisture content of the wet peel entering the dryer and the dried pellets discharging from the pellet coolers will also be performed. This will allow the wet peel input rate to be calculated by mass balance.

Thank you for consideration of these comments in issuing the final permit. Please call or e-mail me if you have any additional questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.



DB/jkw

cc: Derek Pridgen
Lisa Gefen
J. Kahn

\\GATORBAIT\DP\Projects\2000\0037\0037568a Southern Gardens\01\#01ltr.doc

C. Holladay
O. Knowles, SD
EPA
NPS

Appendix D

*Scott Oil Analysis for Citrus Peel
Samples*

DISTRIBUTED BY MARCH 10, 1997
 FLORIDA CITRUS PROCESSORS ASSOCIATION
 TO: BOARD OF DIRECTORS, FCPA
 ENVIRONMENTAL AFFAIRS COMMITTEE, FCPA

RECEIVED
 F.C.P.A. Winter Haven

MAR 10 1997

ANSWERED



**UNIVERSITY OF
 FLORIDA**

IMPORTANT

Institute of Food and Agricultural Sciences
 Citrus Research and Education Center
 Mr. Clifford C. Beasley, Jr.
 Florida Citrus Processors Association
 P.O. Box 780
 Winter Haven, FL 33882-0780

Date _____
 700 Experiment Station Road
 Lake Alfred FL 33850-2299
 Tel (941) 956-1151
 Fax (941) 956-4631

March 6, 1997

Re: Scott oil methods for VOC feed mill samples

Dear Cliff:

As VOC tests are now being conducted, I have had a number of calls with questions about applying the Scott oil procedure you distributed for oil in the wet peel residue and press cake. The most common problem is that attempts are made to use the same ratio for pellets as used for wet peel residue. Some very nice paste has been made with 500 g pellets brought to 3000 g by adding water. Simply described, one must bring all samples to the same amount of water based on the moisture content of the sample used.

The following illustrates how 100g dry matter (0% moisture) should be treated:

- 1.) wet peel residue (80% moisture, 20% solids)
 $100g \div 0.2 = 500 \text{ g sample. Bring to } 3000 \text{ g}$
- 2.) press cake (60% moisture, 40% solids)
 $100g \div 0.4 = 250 \text{ g sample. Bring to } 3000 \text{ g}$
- 3.) pellets (10% moisture, 90 % solids)
 $100g \div 0.9 = 111 \text{ g sample. Bring to } 3000 \text{ g}$

If the blender won't hold 3000 g, smaller masses can be used. Although, one shouldn't compromise the statistical uniformity of the sampling procedure. e.g. divide samples by 5.

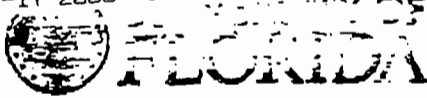
- | | | |
|---------------------|--------|-------|
| 1.) 100 g wet peel | -----> | 600 g |
| 2.) 50 g press cake | -----> | 600 g |
| 3.) 22 g pellets | -----> | 600 g |

The only critical thing about the amount of water is that enough must be used to have a fluid sample for the Scott oil procedure. More is o.k., but less can cause a problem.

If people still have questions, they can call me or my chemist, Rocky Bryan, if I'm not in.

Sincerely,

Bob Braddock



Institute of Food and Agricultural Sciences
Citrus Research and Education Center

700 Experiment Station Road
Lake Alfred FL 33850-2299
Tel. (941) 956-1151
Fax (941) 956-4411

MEMO

To: Cliff Beasley, FCPA

From: R.J. Braddock, IFAS, CREC Lake Alfred

Date: October 29, 1996

Subject: Method for determining oil in feed mill peel and press cake

Peel source— grab samples of FMC extractor residue in the feed mill are ok as is if Brown reamer residue, need to slice or break down to quarters so that uniform blending can take place.

Procedure— 500 gm peel residue or press cake —> q.s. (bring) to 3000 gm with water —>

—>blend in large (1 gal size) Waring blender 2 min at medium speed + 1 min at high speed —>

—>take 25 gm samples for Scott oil analysis (usually duplicate) —> 25 gm sample in 300 mL

round distillation flask, 4 boiling chips + 25 mL isopropanol. —> distill as per Scott oil analysis

for juice. Can use 0.025 or 0.10 N bromide-bromate to titrate the distillate. A sample calculation

to express oil as lb oil/ ton peel is as follows:

$$\begin{aligned}
 & \frac{11.3 \text{ ml titrant (0.025 N)}}{25 \text{ gm sample}} \times \frac{3000 \text{ gm sample}}{500 \text{ gm peel}} \times \frac{0.001 \text{ ml oil}}{\text{ml titrant}} \times \frac{0.84 \text{ gm oil (density)}}{\text{ml oil}} \\
 & \frac{454 \text{ gm peel}}{1 \text{ lb peel}} \times \frac{1 \text{ lb oil}}{454 \text{ gm oil}} \times \frac{2000 \text{ lb peel}}{\text{ton peel}} = \frac{4.8 \text{ lb oil}}{\text{ton peel}}
 \end{aligned}$$

Method 12**SCOTT METHOD (BROMATE TITRATION METHOD)
(After W.C. Scott, USDA/Research)**

The Scott method provides a quick and accurate method for the determination of the oil content (actually limonene, the major component of citrus oil) in single strength or reconstituted citrus juice samples. Isopropanol and water are added to the sample of citrus juice and the mixture is distilled. Dilute hydrochloric acid and methyl orange indicator are added to the distillate and this is titrated with 0.0247N potassium bromide-bromate solution to the disappearance of color. One ml of titrant is equivalent to 0.001 ml d-limonene.

Equipment

1. Burette, 25 ml graduated to 0.1 ml, with reservoir for convenience and easily controllable flow to permit both rapid and drop-wise titration.
2. Heating element (750 watt).
3. Glass beads.
4. Pipettes, 25 ml and 10 ml (automatic pipettes prove to be quite convenient), or 25 ml graduated cylinder for measuring sample and reagents.
5. Beaker, 150 ml.
6. Automatic stirring device (optional).
7. Cool liquid supply for still condenser (tap water acceptable).

Reagents

1. 2-propanol, reagent grade.
2. Dilute hydrochloric acid, one volume concentrated acid to two volumes of distilled water.
3. Methyl orange solution, 0.1% in water.
4. Potassium bromide-bromate solution 0.0247N, prepared by diluting 125 ml of 0.099 N $KBr - BrO_3$ to 50 ml with distilled water.

Note: Acid and indicator solutions can be combined by adding 5 ml of indicator solution to 1000 ml of dilute acid.

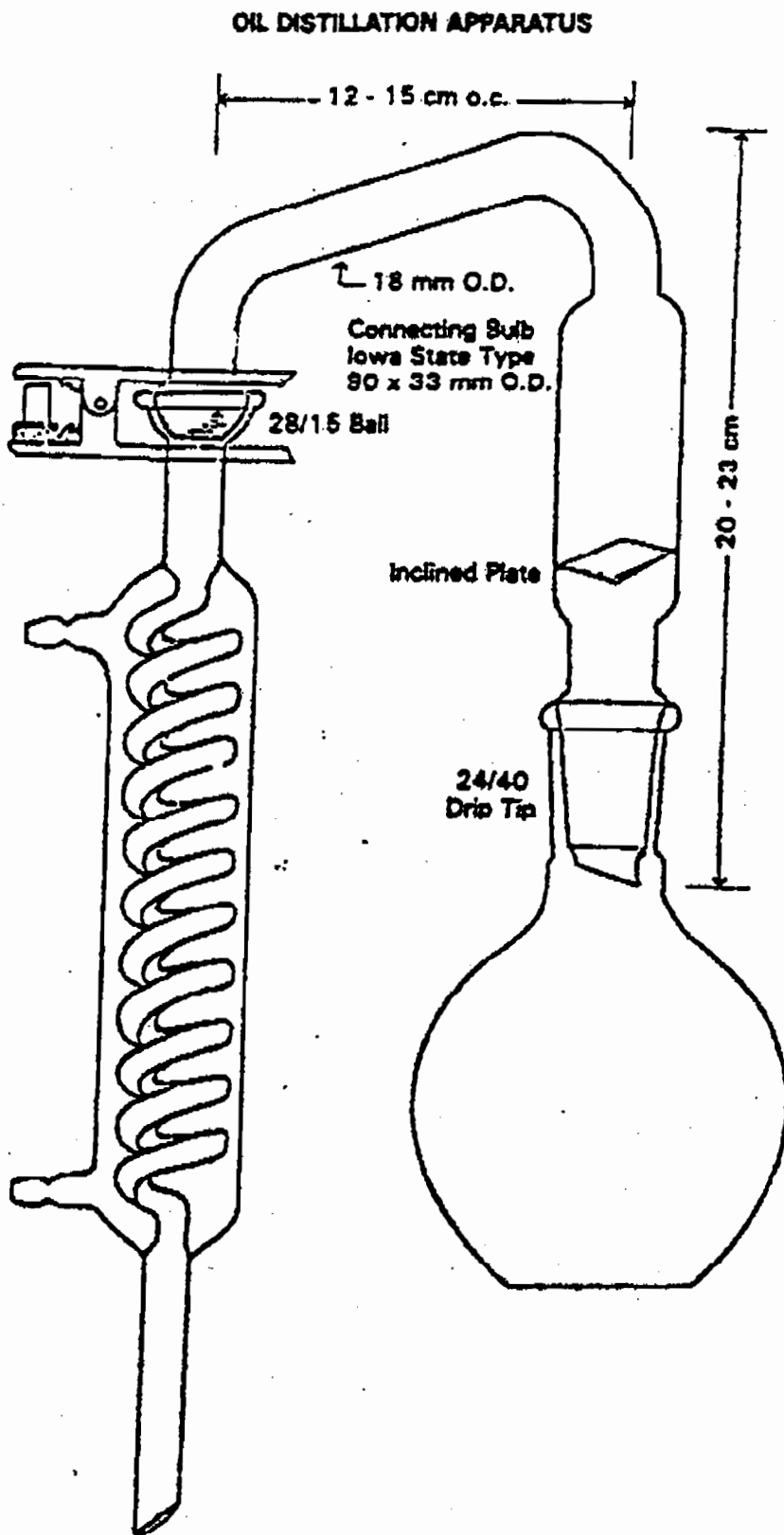
Procedure

1. Titrate 25 ml of 2-propanol and 10 ml of acid solution with .0247N bromide-bromate solution to determine the reagent blank.
2. Pipette 25 ml of juice sample into distillation flask containing glass beads. Add 25 ml 2-propanol and 50 ml water. Distill at full heat to collect approximately 30 ml distillate in 150 ml beaker.
3. Add 10 ml dilute hydrochloric acid and 1 drop methyl orange indicator solution to the distillate (or add 10 ml of combined solution).
4. Titrate solution from step 2 with 0.0247N potassium bromide-bromate solution to colorless end point. Titration is facilitated by using an automatic stirring device. Titrant may be added fairly rapidly until the red color begins to fade, but must be added dropwise near the end to avoid overrunning the endpoint.

Calculation

Subtract the ml of reagent blank from the ml titrated for sample. Multiply the result by 0.004 to obtain percent recoverable oil by volume in the juice sample.

Figure 4





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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ATLANTA, GEORGIA 30303-8960

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4APT-ARB

BUREAU OF AIR REGULATION

Mr. A. A. Linero, P.E.
Florida Department of Environmental Protection
Division of Air Resources Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: Preliminary Determination and Draft PSD Permit for Southern Gardens Citrus Processing Corp. (PSD-FL-299), Clewiston, Polk County, Florida

Dear Mr. Linero:

Thank you for sending the preliminary determination and draft prevention of significant deterioration (PSD) permit for a modification of the Southern Gardens Citrus Processing facility in Clewiston, Florida. The proposed modification consists of the installation of three additional citrus juice extractors that will serve to increase total facility-wide production capacity. The estimated emissions increases resulting from the proposed modification are above the thresholds requiring PSD review for volatile organic compounds (VOC), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), and particulate matter (PM/PM₁₀). However, the only emissions units undergoing a physical change or change in the method of operation and that require a best available control technology (BACT) evaluation are storage tanks for d-limonene. These tanks emit small amounts of VOC.

Based on our review of the preliminary determination, draft PSD permit, and permit application, we have the following comments:

1. The netting analysis is based on past actual emissions for calendar years 1998 and 1999. For information purposes, we note that the applicable Florida Department of Environmental Protection (FDEP) regulation in 62-210.200(12) specifies that "actual emissions as of a particular date shall equal the average, in tons per year, at which the emissions unit actually emitted the pollutant during a two year period which precedes the particular date and which is representative of the normal operation of the emissions unit." The regulation does not specify use of calendar years but rather the use of the two-year period preceding "the particular date." If the particular date in this case is construed to be September 2000 when the application was submitted, then the two-year period preceding the date of application would have been approximately mid-1998 through mid-2000. For this project, however, use of the 1998-1999 calendar year period appears to be a

conservative approach in that past actual emissions (for comparison with future potential emissions) were lower during this period than during other recent periods.

2. As we have already discussed with FDEP, the basis for an exemption from ozone preconstruction ambient air quality monitoring needs to be added to the final determination, and the basis for an exemption from PM₁₀ preconstruction ambient air quality monitoring needs to be corrected. The PM₁₀ modeling results do not show that maximum 24-hour PM₁₀ concentrations will be less than the *de minimis* monitoring exemption concentrations as stated in the permit application and in the preliminary determination.
3. Condition 28. in Section II of the draft permit states that the owner or operator may accept wet peel from offsite sources for drying. As discussed with FDEP, we recommend that consideration be given to the need for permit restrictions on the quantity of peel received from offsite sources.

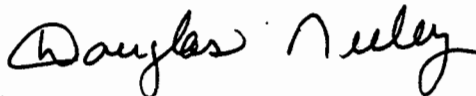
In terms of the air quality impact assessment, our review comments on this PSD application were discussed with FDEP on November 14, 2000. The additional information provided in this discussion resolved some of our comments and questions. The following are our unresolved comments:

1. Potential Boiler Emissions - Table 2-6 provides estimates of potential emissions from Boilers 1-4 operation. These emissions are based on emission factors and the assumption of 8,760 hours of operation per year. The values in the column "Total Boiler Nos. 1, 2, 3, and 4" do not equal to the sum of Boilers #1-3 (Note: Boiler #4 only operates in standby mode). Because these same values appear in Tables 2-2 and 6-2 and are used in the impact assessment, the basis for the total emissions in this column should be provided.
2. Southern Gardens Citrus Processing (SGCP) Facility Emissions - Table 6-2 provides both the short-term and long-term emission rates for SGCP. The following items were noted.
 - a. The current and future short-term hourly emission rates are equal. The future short-term hourly emission rates for the Peel Dryer/WHE and Pellet Coolers will increase.
 - b. The PM₁₀ and CO emission rates for both the short-term and long-term periods do not agree with those provided in the permit application.
 - c. The boilers' long-term hourly emission rates were estimated from the annual emissions (tons per year divided by 8,760 hours). This method is appropriate for the boilers as they are permitted for a full year's operation. The same method appears to have been used to estimate the long-term hourly emission rates for the Peel Dryer and Pellet Coolers. This is not appropriate because these units are only permitted to operate a maximum of 6,000 hours per year.
 - d. Confirmation is needed that natural gas is not a source of fuel for this facility and the plant operates throughout the year (i.e., not operating on a seasonal basis).

3. Site Boundary - The site boundary used in the modeling is provided in Table 6-10. The permit application does not contain a figure showing the plant site boundary. Confirmation is needed that the modeled site boundary has a physical barrier to public access and encompasses land owned or controlled by SGCP Corporation.
4. PSD Increment Assessment - The maximum cumulative PSD increment concentrations are reported to occur at the site boundary. No additional refined modeling was performed. Modeling should be performed to 100 meter resolution around the maximum and/or controlling concentrations. If the next closest receptors are more than 100 meters in distance from the site boundary, more refined modeling is needed.
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 - a. The Class I modeled hourly emission rates are different from those provided in Table 6-2 and used in the Class II assessment
 - b. The estimated maximum change in visibility for the regional haze assessment appears to exceed the 0.5 deciview guideline threshold value.

If you have any questions regarding the comments in this letter, please call either Jim Little at (404) 562-9118 or Stan Krivo at (404) 562-9123.

Sincerely,



R. Douglas Neeley
 Chief
 Air and Radiation Technology Branch
 Air, Pesticides and Toxics
 Management Division

cc: G. Kohn
 C. Holladay
 D. Buff, holder
 D. Knowles, SD
 NPS



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TO

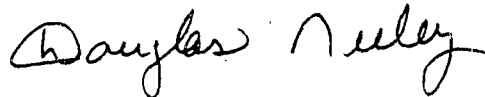
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Sincerely,



R. Douglas Neeley
Chief

Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

cc: G. Kahn
E. Holladay
G. Buff, ~~Walden~~
D. Knowles, SD
NPS

Golder Associates Fax

To: Joe Khan

Fax Number: 850-922-6979

Company: FDEP

Date: November 17, 2000

From: David Buff

e-mail: @golder.com

Our ref: 003-7568

Voice Mail:

RE:

Total pages (including cover): 19

Hard copy to follow

MESSAGE



6241 NW 23rd St., Suite 500
Gainesville, FL 32653
U.S.A.
Telephone: (352) 336-5600
Fax: (352) 336-6603

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Golder Associates Inc.

6241 NW 23rd Street, Suite 600
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603



November 16, 2000

0037568

Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL

Attention: Mr. Joe Kahn, P.E.

RE: SOUTHERN GARDENS CITRUS PROCESSING CORP. (SGCPC)
DRAFT PERMIT NO. 0510015-007-AC; PSD-FL-299
ADDITION OF THREE JUICE EXTRACTORS

Dear Mr. Kahn:

SGCPC has received the draft permit dated October 11, 2000, for the above referenced project from the Florida Department of Environmental Protection. The draft permit has been reviewed, and several comments and concerns have been identified. The comments are addressed below, in the same order as they appear in the draft permit. The comments also reflect my conversation with you of November 15 in regards to the draft permit.

SECTION II**Page 4 of 12**

First paragraph, last sentence – in order to clarify that this permit only revises conditions imposed by this permit, revise per the similar statement in Section III, Subsection C (page 12 of 12):

“Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.”

Page 5 of 12

10(c). It is requested that the reasonable precautions specified be consistent with those in SGCPC's final Title V permit.

Page 6 of 12

14. Delete the word “neither” in the first sentence.

Page 9 of 12

28. At the present time, SGCPC elects to use the material balance method of oil recovery using the measured oil in the incoming fruit, divided into the sum of the oil remaining in the juice, the cold press oil recovered, d-limonene recovered, and oil remaining in the dried pellets, expressed as a percentage.

FDEP
Mr. Joe Kahn, P.E.

November 16, 2000
0037568

- 2 -

In the third sentence of the second paragraph, reword into two sentences, the first ending with "...facility operation during each month", and the second beginning with "The monthly averages..."

It is understood that the second sentence of the third paragraph, relating to wet peel not processed through the dryer, is consistent with the citrus industry legislation, which assigns oil recovery to the facility where the wet peel is processed through the dryer.

The third paragraph requires that the methodologies for determining oil contents be submitted for approval prior to beginning recordkeeping. Therefore, SGPCPC is submitting the proposed methodologies with this comment letter, as follows.

SGPCPC proposes to measure oil contents of incoming fruit and dried pellets on a twice per week basis. SGPCPC currently measures the available oil in the fruit on a twice per week basis, and this is believed to be adequate for purposes of the material balance. A representative sample of incoming fruit, just prior to the extractors, will be obtained for each sampling event. The results from the two samples will be averaged, and the average used to represent the available oil for that week.

A representative sample of dried pellets discharging from the pellet coolers will also be obtained twice per week. The oil content of the pellets is low, and is believed to not vary greatly from day to day. As a result, the material balance will not be affected greatly by increasing the accuracy with more frequent sampling. The cost of more frequent sampling is not justified.

Both fruit and dried pellet samples will be analyzed using the Braddock method of sample preparation and the Scott Oil method for determining oil content. Copies of these methods are attached.

The amount of dried pellets produced each day will be estimated by measuring the weight of pellets loaded out from the pellet warehouse. This provides a good measure of actual pellet production for the day, since SGPCPC has limited storage capacity, and pellets do not remain in storage long.

SECTION III - Subsection A

Page 10 of 12

First paragraph, last sentence - in order to clarify that this permit only revises conditions imposed by this permit, revise per the similar statement in Section III, Subsection C (page 12 of 12):

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FDEP
Mr. Joe Kahn, P.E.

- 3 -

November 16, 2000
0037568

SECTION III - Subsection B

Page 11 of 12

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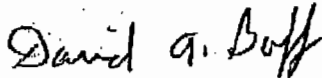
"Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit."

2, 4. SGCPC proposes to demonstrate compliance with the 47 TPH (daily average) limitation for the peel dryer by measuring the daily pellet production as described above for oil recovery (i.e., by measuring the weight of pellets loaded out from the pellet warehouse). Daily sampling and analysis for moisture content of the wet peel entering the dryer and the dried pellets discharging from the pellet coolers will also be performed. This will allow the wet peel input rate to be calculated by mass balance.

Thank you for consideration of these comments in issuing the final permit. Please call or e-mail me if you have any additional questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.



David A. Buff, P.E., Q.E.P.
Principal Engineer
Florida P.E. #19011

DB/jkw

cc: Derek Fridgen
Lisa Gefen

\\GATORBACK\DP\Projects\2000\0037\0037568a Southern Gardens\01\#011r.doc

Appendix D

*Scott Oil Analysis for Citrus Peel
Samples*

NOV-17-2000 02:27 FROM SOUTHERN GARDENS CITRUS TO

13523366603 P.05

DISTRIBUTED BY MARCH 10, 1997
FLORIDA CITRUS PROCESSORS ASSOCIATION
TO: BOARD OF DIRECTORS, FCPA
ENVIRONMENTAL AFFAIRS COMMITTEE, FCPA

RECEIVED
F.C.P.A. Winter Haven
MAR 10 1997
ANSWERED



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FLORIDA

IMPORTANT

Institute of Food and Agricultural Sciences
Citrus Research and Education Center
Mr. Clifford C. Beasley, Jr.
Florida Citrus Processors Association
P.O. Box 780
Winter Haven, FL 33882-0780

Date _____
700 Experiment Station Road
Lake Alfred FL 33850-2299
Tel. (941) 956-3151
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March 6, 1997

Re: Scott oil methods for VOC feed mill samples

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Bob Braddock

NOV-17-2000 02:27

FROM SOUTHERN GARDENS CITRUS

TO

13523366603

P.04



Institute of Food and Agricultural Sciences
Citrus Research and Education Center

700 Experiment Station Road
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Tel. (941) 956-1151
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MEMO

To: Cliff Beasley, FCPA

From: R.J Braddock, IFAS, CREC Lake Alfred

RJ Braddock

Date: October 29, 1996

Subject: Method for determining oil in feed mill peel and press cake

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Procedure-- 500 gm peel residue or press cake --> q.s. (bring) to 3000 gm with water -->

-->blend in large (1 gal size) Waring blender 2 min at medium speed + 1 min at high speed -->

-->take 25 gm samples for Scott oil analysis (usually duplicate) --> 25 gm sample in 300 mL

round distillation flask, 4 boiling chips + 25 mL isopropanol. --> distill as per Scott oil analysis

for juice. Can use 0.025 or 0.10 N bromide-bromate to titrate the distillate. A sample calculation

to express oil as lb oil/ ton peel is as follows:

$$\begin{aligned}
 & \frac{11.3 \text{ ml titrant (0.025 N)}}{25 \text{ gm sample}} \times \frac{3000 \text{ gm sample}}{500 \text{ gm peel}} \times \frac{0.001 \text{ ml oil}}{\text{ml titrant}} \times \frac{0.84 \text{ gm oil (density)}}{\text{ml oil}} \\
 & \frac{454 \text{ gm peel}}{1 \text{ lb peel}} \times \frac{1 \text{ lb oil}}{454 \text{ gm oil}} \times \frac{2000 \text{ lb peel}}{\text{ton peel}} = \frac{4.8 \text{ lb oil}}{\text{ton peel}}
 \end{aligned}$$

Method 12**SCOTT METHOD (BROMATE TITRATION METHOD)**
(After W. C. Scott, USDA/Research)

The Scott method provides a quick and accurate method for the determination of the oil content (actually limonene, the major component of citrus oil) in single strength or reconstituted citrus juice samples. Isopropanol and water are added to the sample of citrus juice and the mixture is distilled. Dilute hydrochloric acid and methyl orange indicator are added to the distillate and this is titrated with 0.0247N potassium bromide-bromate solution to the disappearance of color. One ml of titrant is equivalent to 0.001 ml d-limonene.

Equipment

1. Burets, 25 ml graduated to 0.1 ml, with reservoir for convenience and easily controllable flow to permit both rapid and drop-wise titration.
2. Heating element (750 watt).
3. Glass beads.
4. Pipettes, 25 ml and 10 ml (automatic pipettes prove to be quite convenient), or 25 ml graduated cylinder for measuring sample and reagents.
5. Beaker, 150 ml.
6. Automatic stirring device (optional).
7. Cool liquid supply for still condenser (tap water acceptable).

Reagents

1. 2-propanol, reagent grade.
2. Dilute hydrochloric acid, one volume concentrated acid to two volumes of distilled water.
3. Methyl orange solution, 0.1% in water.
4. Potassium bromide-bromate solution 0.0247N, prepared by diluting 125 ml of 0.099 N $KBr - BrO_3$ to 50 ml with distilled water.

Note: Acid and indicator solutions can be combined by adding 5 ml of indicator solution to 1000 ml of dilute acid.

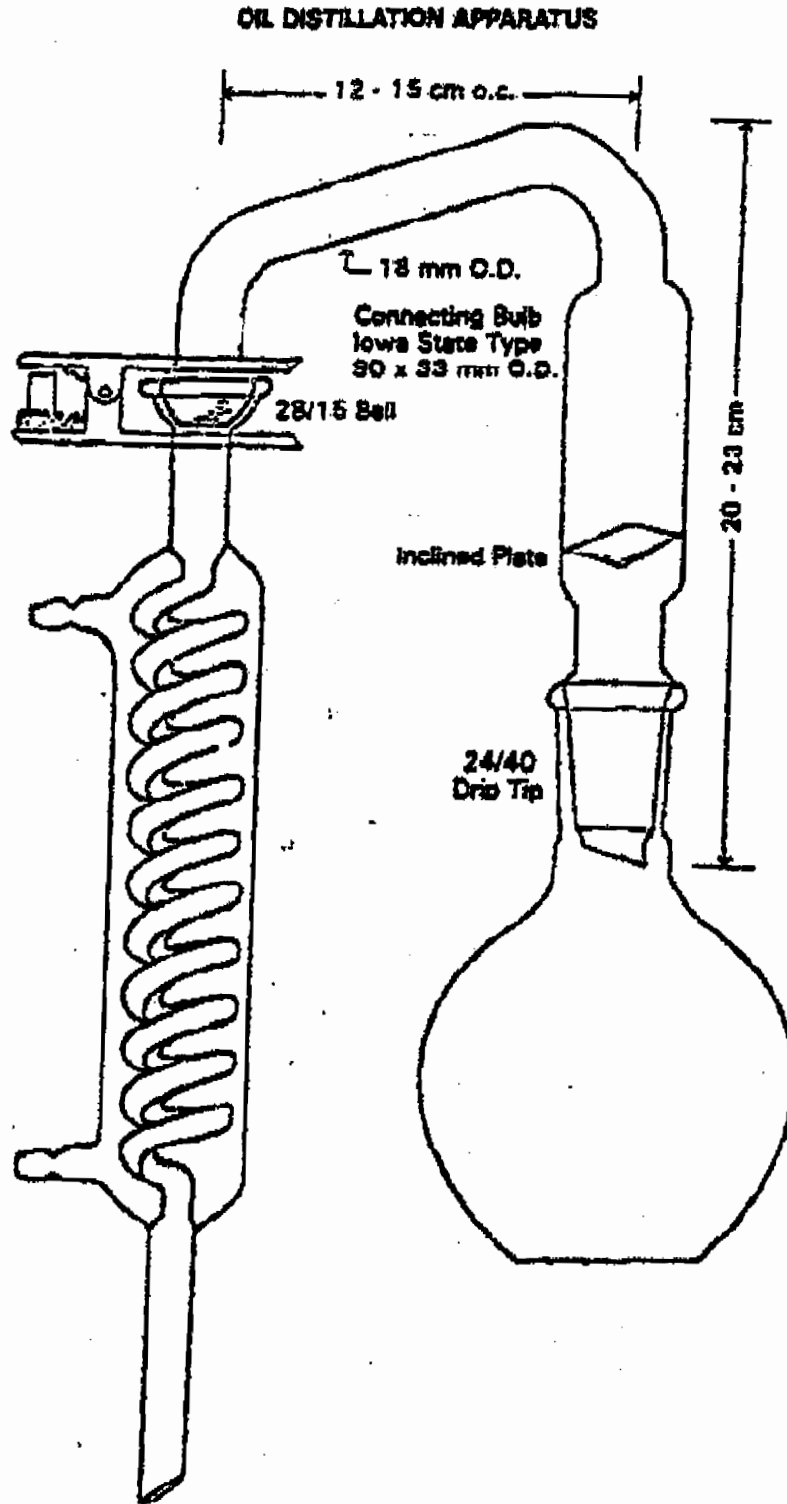
Procedure

1. Titrate 25 ml of 2-propanol and 10 ml of acid solution with 0.0247N bromide-bromate solution to determine the reagent blank.
2. Pipette 25 ml of juice sample into distillation flask containing glass beads. Add 25 ml 2-propanol and 50 ml water. Distill at full heat to collect approximately 30 ml distillate in 150 ml beaker.
3. Add 10 ml dilute hydrochloric acid and 1 drop methyl orange indicator solution to the distillate (or add 10 ml of combined solution).
4. Titrate solution from step 2 with 0.0247N potassium bromide-bromate solution to colorless end point. Titration is facilitated by using an automatic stirring device. Titrant may be added fairly rapidly until the red color begins to fade, but must be added dropwise near the end to avoid overrunning the endpoint.

Calculation

Subtract the ml of reagent blank from the ml titrated for sample. Multiply the result by 0.004 to obtain percent recoverable oil by volume in the juice sample.

Figure 4.





UNI

Post-It™ brand fax transmittal memo 7671 # of pages > 3	
To <u>Cleve Holladay</u>	From <u>Stan Krivo</u>
Co.	Co.
Dept.	Phone #
Fax # <u>850/922-6979</u>	Fax #

NOV 16 2000

4APT-ARB

Mr. A. A. Linero, P.E.
 Florida Department of Environmental Protection
 Division of Air Resources Management
 Twin Towers Office Building
 2600 Blair Stone Road
 Tallahassee, Florida 32399-2400

SUBJ: Preliminary Determination and Draft PSD Permit for Southern Gardens Citrus Processing Corp. (PSD-FL-299), Clewiston, Polk County, Florida

Dear Mr. Linero:

Thank you for sending the preliminary determination and draft prevention of significant deterioration (PSD) permit for a modification of the Southern Gardens Citrus Processing facility in Clewiston, Florida. The proposed modification consists of the installation of three additional citrus juice extractors that will serve to increase total facility-wide production capacity. The estimated emissions increases resulting from the proposed modification are above the thresholds requiring PSD review for volatile organic compounds (VOC), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), and particulate matter (PM/PM₁₀). However, the only emissions units undergoing a physical change or change in the method of operation and that require a best available control technology (BACT) evaluation are storage tanks for d-limonene. These tanks emit small amounts of VOC.

Based on our review of the preliminary determination, draft PSD permit, and permit application, we have the following comments:

1. The netting analysis is based on past actual emissions for calendar years 1998 and 1999. For information purposes, we note that the applicable Florida Department of Environmental Protection (FDEP) regulation in 62-210.200(12) specifies that "actual emissions as of a particular date shall equal the average, in tons per year, at which the emissions unit actually emitted the pollutant during a two year period which precedes the particular date and which is representative of the normal operation of the emissions unit." The regulation does not specify use of calendar years but rather the use of the two-year period preceding "the particular date." If the particular date in this case is construed to be September 2000 when the application was submitted, then the two-year period preceding the date of application would have been approximately mid-1998 through mid-2000. For this project, however, use of the 1998-1999 calendar year period appears to be a

conservative approach in that past actual emissions (for comparison with future potential emissions) were lower during this period than during other recent periods.

2. As we have already discussed with FDEP, the basis for an exemption from ozone preconstruction ambient air quality monitoring needs to be added to the final determination, and the basis for an exemption from PM₁₀ preconstruction ambient air quality monitoring needs to be corrected. The PM₁₀ modeling results do not show that maximum 24-hour PM₁₀ concentrations will be less than the *de minimis* monitoring exemption concentrations as stated in the permit application and in the preliminary determination.
3. Condition 28. in Section II of the draft permit states that the owner or operator may accept wet peel from offsite sources for drying. As discussed with FDEP, we recommend that consideration be given to the need for permit restrictions on the quantity of peel received from offsite sources.

In terms of the air quality impact assessment, our review comments on this PSD application were discussed with FDEP on November 14, 2000. The additional information provided in this discussion resolved some of our comments and questions. The following are our unresolved comments:

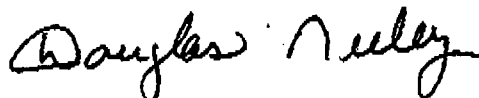
1. Potential Boiler Emissions - Table 2-6 provides estimates of potential emissions from Boilers 1-4 operation. These emissions are based on emission factors and the assumption of 8,760 hours of operation per year. The values in the column "Total Boiler Nos. 1, 2, 3, and 4" do not equal to the sum of Boilers #1-3 (Note: Boiler #4 only operates in standby mode). Because these same values appear in Tables 2-2 and 6-2 and are used in the impact assessment, the basis for the total emissions in this column should be provided.
2. Southern Gardens Citrus Processing (SGCP) Facility Emissions - Table 6-2 provides both the short-term and long-term emission rates for SGCP. The following items were noted.
 - a. The current and future short-term hourly emission rates are equal. The future short-term hourly emission rates for the Peel Dryer/WHE and Pellet Coolers will increase.
 - b. The PM₁₀ and CO emission rates for both the short-term and long-term periods do not agree with those provided in the permit application.
 - c. The boilers' long-term hourly emission rates were estimated from the annual emissions (tons per year divided by 8,760 hours). This method is appropriate for the boilers as they are permitted for a full year's operation. The same method appears to have been used to estimate the long-term hourly emission rates for the Peel Dryer and Pellet Coolers. This is not appropriate because these units are only permitted to operate a maximum of 6,000 hours per year.
 - d. Confirmation is needed that natural gas is not a source of fuel for this facility and the plant operates throughout the year (i.e., not operating on a seasonal basis).

3

3. **Site Boundary** - The site boundary used in the modeling is provided in Table 6-10. The permit application does not contain a figure showing the plant site boundary. Confirmation is needed that the modeled site boundary has a physical barrier to public access and encompasses land owned or controlled by SGCP Corporation.
4. **PSD Increment Assessment** - The maximum cumulative PSD increment concentrations are reported to occur at the site boundary. No additional refined modeling was performed. Modeling should be performed to 100 meter resolution around the maximum and/or controlling concentrations. If the next closest receptors are more than 100 meters in distance from the site boundary, more refined modeling is needed.
5. **Operational Limit (Peel Dryer and Pellet Cooler)** - The impact modeling only included the Peel Dryer and Pellet Cooler emissions from the months of January through May and November and December. This seven month period is less than the permitted 6,000 hours of annual operation. The limited operation of these units should be included as a permit condition.
6. **Class I Assessment** - The federal land manager for the Everglades National Park should be provided an opportunity to review and comment on this preliminary determination and draft PSD permit. Two items in the Class I area impact assessment need further explanation:
 - a. The Class I modeled hourly emission rates are different from those provided in Table 6-2 and used in the Class II assessment
 - b. The estimated maximum change in visibility for the regional haze assessment appears to exceed the 0.5 deciview guideline threshold value.

If you have any questions regarding the comments in this letter, please call either Jim Little at (404) 562-9118 or Stan Krivo at (404) 562-9123.

Sincerely,



R. Douglas Neeley
Chief

Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

SOUTHERN GARDENS CITRUS

October 24, 2000

RECEIVED

OCT 25 2000

Joseph Kahn, P.E.
Department of Environmental Protection
Bureau of Air Regulation
Suite 4, 111 S. Magnolia Drive
Tallahassee, FL 32301

BUREAU OF AIR REGULATION

Re: Southern Gardens Citrus Processing Corporation
DEP File No. 0510015-007-AC, PSD-FL299
Affidavit of Publication

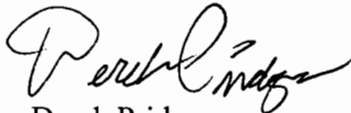
Dear Mr. Kahn:

Please find enclosed the original Affidavit of Publication provided by Clewiston News. The Public Notice of Intent to Issue Air Construction Permit was published on October 18, 2000, in the legal advertisement section of the Clewiston News.

Your attention to this matter is greatly appreciated and if additional information is required, I can be contacted at (863)-902-4178.

Sincerely,

SOUTHERN GARDENS CITRUS PROCESSING CORPORATION



Derek Pridgen

cc: J. Kahn
C. Holladay
D. Buff, Golden
P. Blachman, SD
EPA
WPS

The Clewiston News

Published Weekly

Clewiston, Florida

AFFIDAVIT OF PUBLICATION

State of Florida

County of Hendry

Before the undersigned authority, personally appeared Katrina Elsen, who on oath says she is the Executive Editor of the Clewiston News, a weekly newspaper published at Clewiston in Hendry County, Florida, that the attached copy of advertisement, being a Notice in

the matter of Intent to Issue

Air Construction Permit
RECEIVED

in the OCT 25 2000 court, was published in

said newspaper in the issue of October 18, 2000
BUREAU OF AIR REGULATION

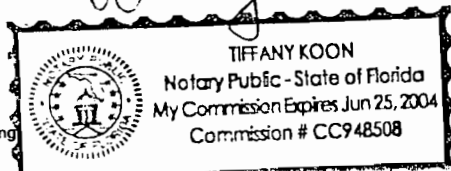
Affiant further says that the said Clewiston News is a newspaper published at Clewiston, in said Hendry County, continuously published in said Hendry County, Florida, each week, and has been entered as a second class mail matter at the post office in Clewiston, in said Hendry County, Florida, for a period of one year next preceding the first publication says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Katrina Elsen

Sworn to and subscribed before me this 18th day of October, A.D. 2000.

Tiffany Koon

Notary Public



Lyons Printing

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0510015-007-AC, PSD-FL-299

Southern Gardens Citrus Processing Corp.

Addition of 3 Juice Extractors

Hendry County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Southern Gardens Citrus Processing Corp., to install three additional juice extractors at the existing facility located at 755 County Road 833, Clewiston, Hendry County. The applicant's mailing address is: PO Box 130, Clewiston, Florida 33440. A Best Available Control Technology (BACT) determination was required for this project pursuant to Rule 62-212.400, F.A.C., for three existing d-limonene storage tanks. The permit removes specific emission limits for volatile liquid storage tanks, but limits potential emission of air pollutants by limiting fruit throughput and operation of certain exiting emissions units at the facility.

An air quality impact was conducted. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards. The maximum predicted PSD Class II increments of SO₂ and PM₁₀ consumed by all sources in the area, including this project, will be as follows:

	PSD Class II Increment Consumed (ug/m³)	Allowable Increment (ug/m³)	Percent Increment Consumed
PM₁₀			
24-hour	22	31	73
Annual	1	17	6
SO₂			
3-hour	168	512	33
24-hour	77	91	85
Annual	3	20	15

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department Bureau of Air Regulation at 2600 Blair Stone Road, Mall Station #5505, Tallahassee, FL 32399-2400.

Any written comments filed shall be made available for public inspection. If written comments received result in a significant change to the proposed agency action, the Department shall revise the proposed permit and require, if applicable another Public Notice.

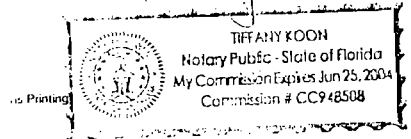
The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to section 120-569 and 120-57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office Of General Counsel of the Department at 3900 Commonwealth Boulevard, Mall Station #35, Tallahassee, FL, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below

... and, rebate, commission or reward for the purpose of
...ing this advertisement for publication in the said
...spaper.

Katrina Elshen
born to and subscribed before me this 13th day
October, A.D. 192000
Tiffany Koon
Notary Public



The Department will accept written comments and requests for public
the proposed permit issuance action for a period of thirty (30) days from the date
Public Notice of Intent to Issue Air Construction Permit. Written comments and
meetings should be provided to the Department Bureau of Air Regulation at 20
Mall Station #5505, Tallahassee, FL 32399-2400.
Any written comments filed shall be made available for public inspection.
received result in a significant change to the proposed agency action, the Depart
proposed permit and require, if applicable another Public Notice.

The Department will issue the permit with the attached conditions un
for an administrative hearing is filed pursuant to section 120.569 and 120.57 F.S.
for filing a petition. The procedures for petitioning for a hearing are set forth b
Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed per
petition for an administrative proceeding (hearing) under sections 120.569 and
Statutes. The petition must contain the information set forth below and must be
Office Of General Counsel of the Department at 3900 Commonwealth Boulevard
Tallahassee, FL, 32399-3000. Petitions filed by the permit applicant or any of th
must be filed within fourteen days of receipt of this notice of intent. Petitions
other than those entitled to written notice under section 120.60(3) of the Florida
within fourteen days of publication of the public notice or within fourteen days of
of intent, whichever occurs first. Under section 120.60(3), however, any pe
Department for notice of agency action may file a petition within fourteen da
notice, regardless of the date of publication. A petitioner shall mail a copy of the
cant at the address indicated above at the time of filing. The failure of any per
within the appropriate time period shall constitute a waiver of that person's righ
istrative determination (hearing) under sections 120.569 and 120.57 F.S., or to
ceeding and participate as a party to it. Any subsequent intervention will be on
the presiding officer upon the filing of a motion in compliance with Rule 28-10
Administrative Code.

A petition that disputes the material facts on which the Department's
contain the following information: (a) The name and address of each agenc
agency's file or identification number, if known; (b) The name, address, and tele
petitioner, the name, address, and telephone number of the petitioner's repres
shall be the address for service proposed during the course of the proceeding, an
how the petitioner's substantial interests will be affected by the agency determin
of how and when the petitioner received notice of the agency action or propos
ment of all disputed issues of material fact. If there are none, the petition must
cise statement of the ultimate facts alleged, including the specific facts the peti
rant reversal or modifications of the agency's proposed action; (f) A statement of
statutes the petitioner contends require reversal or modification of the agency's
(g) A statement of the relief sought by the petitioner, stating precisely the action
agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the De
based shall state the no such facts are in dispute and otherwise shall contain the
set forth above, as required by rule 28-106.301.

Because the administrative hearing process is designed to formulate fin
filing of a petition means that the Department's final action may be different fro
by it in this notice. Persons whose substantial interests will be affected by any s
the Department on the application have the right to petition to become a party
accordance with the requirements set forth above.

A complete project file is available for public inspection during normal
am to 5:00 pm, Monday through Friday, except legal holidays, at:

Department of Environmental Protection	Department of Environmental
Bureau of Air Regulation	South Florida District
Suite 4, 111 S. Magnolia Drive	Suite 364, 2295 Victoria A
Tallahassee, Florida 32301	Fort Myers, Florida 33901
Telephone: 850/488-0114	Telephone: 941/332-6975
Fax: 850/922-6979	

The complete project file includes the application, technical evaluation,
the information submitted by the responsible official, exclusive of confidential r
403.111, F.S. Interested persons may contact the Administrator, New Source Re
Department's reviewing engineer for this project, Joseph Kahn, P.E., at the Bure
in Tallahassee, Florida, or cal 850/488-0114, for additional information. Write
to the Department's reviewing engineer should be sent to the following mailin
Environmental Protection, Bureau of Air Regulation, Mail Station #5505, T
32399-2400.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

P.E. Certification Statement

Southern Gardens Citrus Processing Corp.
Addition of 3 Juice Extractors

DEP File No.: 0510015-007-AC, PSD-FL-299
Facility ID No.: 0510015

Project: Air Construction/PSD Permit

I HEREBY CERTIFY that the engineering features described in the above referenced application and related additional information submittals, if any, and subject to the proposed permit conditions, provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

This review was conducted by me.

(Seal)

Joseph Kalin, P.E.
Registration # 45268
Date

Permitting Authority:

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/922-6979

"More Protection, Less Process"

Printed on recycled paper.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Tristan Chapman
VP & Gen. Mgr.
Southern Gardens Citrus
Processing Corp.
PO Box 130
Clewiston, FL 33440

2. Article Number (Copy from service label)

7099 3400 0000 1453 1767

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

C. Signature Agent Addressee

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

PS Form 3811, July 1999

Domestic Return Receipt

102595-99-M-1789

U.S. Postal Service
CERTIFIED MAIL RECEIPT

(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:

Tristan Chapman, VP & Gen. Mgr.

Postage \$ _____
Certified Fee _____
Return Receipt Fee (Endorsement Required) _____
Restricted Delivery Fee (Endorsement Required) _____
Total Postage & Fees \$ _____

Southern
Gardens
Postmark
here

Name (Please Print Clearly to be completed by mailer)

Tristan Chapman

Street, Apt. No., or PO Box No.

PO Box 130

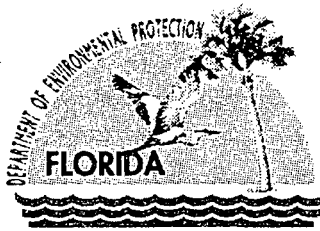
City, State, ZIP+4

Clewiston, FL 33440

PS Form 3800, July 1999

See Reverse for Instructions

7099 3400 0000 1453 1767



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

October 11, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Tristan Chapman
VP and General Manager
Southern Gardens Citrus Processing Corp.
PO Box 130
Clewiston, Florida 33440

Re: DEP File No. 0510015-007-AC, PSD-FL-299
Addition of 3 Juice Extractors


Dear Mr. Chapman:

Enclosed is one copy of the draft air construction permit for the existing Southern Gardens Citrus Processing Corp. citrus processing facility located at 755 County Road 833, Clewiston, Hendry County. The Technical Evaluation and BACT/MACT Determination, the Department's Intent to Issue Air Construction Permit and the Public Notice of Intent to Issue Air Construction Permit are also included.

The Public Notice of Intent to Issue Air Construction Permit must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Joseph Kahn, P.E., at 850/921-9519 or Mr. Linero at 850/488-0114.

Sincerely,


for C. H. Fancy, P.E., Chief,
Bureau of Air Regulation

CHF/jk

Enclosures

In the Matter of an
Application for Permit by:

Mr. Tristan Chapman, VP and General Manager
Southern Gardens Citrus Processing Corp.
PO Box 130
Clewiston, Florida 33440

DEP File No. 0510015-007-AC, PSD-FL-299
Addition of 3 Juice Extractors
Hendry County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of Draft permit attached) for the proposed project, detailed in the application specified above and the enclosed Technical Evaluation and BACT/MACT Determination, for the reasons stated below.

The applicant, Southern Gardens Citrus Processing Corp., applied on September 5, 2000, to the Department for an air construction permit to install three additional juice extractors at the existing facility located at 755 County Road 833, Clewiston, Hendry County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required to perform the proposed work.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of Public Notice of Intent to Issue Air Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.


The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition

must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA, and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.


for C. H. Fancy, P.E., Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit (including the Public Notice of Intent to Issue Air Construction Permit, Technical Evaluation and BACT/MACT Determination, and the Draft permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 10/11/00 to the person(s) listed:

Mr. Tristan Chapman, Southern Gardens*
Mr. David Buff, P.E., Golder
Mr. Ron Blackburn, DEP South District
Mr. Gregg Worley, EPA
Mr. John Bunyak, NPS

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk) 10/11/00 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0510015-007-AC, PSD-FL-299

Southern Gardens Citrus Processing Corp.
Addition of 3 Juice Extractors
Hendry County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Southern Gardens Citrus Processing Corp., to install three additional juice extractors at the existing facility located at 755 County Road 833, Clewiston, Hendry County. The applicant's mailing address is: PO Box 130, Clewiston, Florida 33440. A Best Available Control Technology (BACT) determination was required for this project pursuant to Rule 62-212.400, F.A.C., for three existing d-limonene storage tanks. The permit removes specific emission limits for volatile liquid storage tanks, but limits potential emissions of air pollutants by limiting fruit throughput and operation of certain existing emissions units at the facility.

An air quality impact analysis was conducted. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards. The maximum predicted PSD Class II increments of SO₂, and PM₁₀ consumed by all sources in the area, including this project, will be as follows:

<u>PSD Class II Increment Consumed (µg/m³)</u>	<u>Allowable Increment (µg/m³)</u>	<u>Percent Increment Consumed</u>
PM₁₀		
24-hour 22	31	73
Annual 1	17	6
SO₂		
3-hour 168	512	33
24-hour 77	91	85
Annual 3	20	15

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection	Dept. of Environmental Protection
Bureau of Air Regulation	South Florida District
Suite 4, 111 S. Magnolia Drive	Suite 364, 2295 Victoria Avenue
Tallahassee, Florida, 32301	Fort Myers, Florida 33901-3381
Telephone: 850/488-0114	Telephone: 941/332-6975
Fax: 850/922-6979	

The complete project file includes the application, technical evaluations, draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, or the Department's reviewing engineer for this project, Joseph Kahn, P.E., at the Bureau of Air Regulation in Tallahassee, Florida, or call 850/488-0114, for additional information. Written comments directed to the Department's reviewing engineer should be sent to the following mailing address: Dept. of Environmental Protection, Bureau of Air Regulation, Mail Station #5505, Tallahassee, Florida, 32399-2400.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

1 APPLICANT NAME AND ADDRESS

Southern Gardens Citrus Processing Corp.
PO Box 130
Clewiston, Florida 33440

Authorized Representative: Tristan Chapman, VP and General Manager

2 PROJECT

The project is the installation of three additional citrus juice extractors at its existing citrus processing facility, raising the total number of extractors to thirty nine, and raising the annual processing capacity of the facility to 20 million boxes of citrus fruit per year (based on 90 pounds of oranges or 85 pounds of grapefruit per box). The project description, emissions and rule applicability are described in detail in Section I of the permit.

3 SOURCE IMPACT ANALYSIS

As discussed in more detail in Section II of the permit, the annual potential emissions associated with this project are: PM/PM₁₀, 115.3/113.2; SO₂, 266.7, NO_x, 102.3; CO, 2892; and VOC, 2026 tons per year. An impact analysis was required for this project because it is subject to the requirements of PSD for these pollutants.

3.1 AIR QUALITY ANALYSIS INTRODUCTION

The proposed project will increase emissions of five regulated pollutants at levels in excess of PSD significant amounts: PM/PM₁₀, SO₂, NO₂, CO and VOC. PM₁₀, SO₂ and NO₂ are criteria pollutants and have national and state ambient air quality standards (AAQS), PSD increments, and significant impact levels defined for them. CO is a criteria pollutant and has only AAQS and significant impact levels defined for it.

Potential emissions for VOC are above the 40 TPY significance threshold for the pollutant ozone. The applicant presented the potential increases to the Department, but based on the options available to predict potential impacts associated with the emissions and formation of ozone, the Department has determined that the use of regional models which incorporate the complex chemical mechanisms for predicting ozone formation are not feasible for this project.

The applicant's initial Class II PM₁₀, SO₂ and CO analyses revealed significant impacts in the area surrounding the proposed facility; therefore, full impact Class II AAQS analyses were conducted for PM₁₀, SO₂ and CO, and PSD Class II increment analyses were conducted for PM₁₀ and SO₂. Because the project's impact for PM₁₀, SO₂, NO₂ and CO are less than the de minimis monitoring concentration, pre-construction monitoring was not required for this project.

The applicant's initial Class I PM₁₀, SO₂, and NO₂ analyses revealed no significant impact in the Everglades National Park (ENP). Therefore no additional Class I increment modeling was required.

Based on the preceding discussion, the air quality analyses required by the PSD regulations for this project were the following: a significant impact analysis for PM₁₀, SO₂, NO₂, and CO in the surrounding Class II Area and the Class I ENP; a Class II AAQS analysis for PM₁₀, SO₂ and CO; a Class II PSD increment analysis for PM₁₀ and SO₂; and an analysis of impacts on soils, vegetation, visibility, and of growth-related air quality modeling impacts.

Based on these required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or

significantly contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A more detailed discussion of the required analyses follows.

3.2 MODELS AND METEOROLOGICAL DATA USED IN THE AIR QUALITY ANALYSIS

PSD Class II Area

The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project in the surrounding Class II Area. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. It incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfied the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from National Weather Service (NWS) stations at Fort Myers, Florida (surface data) and Ruskin, Florida (upper air data). The 5-year period of meteorological data was from 1987 through 1991. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

PSD Class I Area

The California Puff (CALPUFF) dispersion model was used to evaluate the pollutant emissions from the proposed project in the Everglades National Park. Meteorological data used in this model was 1987-1991 Fort Myers, Florida/Tampa, Florida ISCST3 data which was enhanced for CALPUFF. CALPUFF is a non-steady state, Lagrangian, long-range transport model that incorporates Gaussian puff dispersion algorithms. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, line, area, and volume sources. The CALPUFF model has the capability to treat time-varying sources. It is also suitable for modeling domains from tens of meters to hundreds of kilometers, and has mechanisms to handle rough or complex terrain situations. Finally, the CALPUFF model is applicable for inert pollutants as well as pollutants that are subject to linear removal and chemical conversion mechanisms.

3.3 FULL IMPACT MODELING

Full impact modeling is modeling that combines the impact of the proposed project along with the impact of other major sources located within the vicinity of the project. The results of this modeling are compared to the applicable AAQS and PSD increments.

TECHNICAL EVALUATION AND BACT/MACT DETERMINATION

AAQS Analysis for PM₁₀, SO₂, and CO

The AAQS represents the maximum concentration of a pollutant that ambient air may contain. Atmospheric dispersion modeling, as previously described, was performed to quantify the amount of PM₁₀, SO₂ and CO in the ambient air surrounding the facility. To make the modeling conservative, the maximum predicted impact was added to a background concentration that was observed at a local air monitor. The results of this analysis are shown in the table below. Maximum PM₁₀, SO₂ and CO concentrations predicted for the proposed project did not show any impacts greater than the AAQS for all corresponding averaging periods. Therefore, the proposed project will not contribute to a violation of the AAQS for PM₁₀, SO₂ and CO, and may be permitted by Department rules.

AAQS ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m ³)	Background Conc. (ug/m ³)	Total Predicted Impact (ug/m ³)	AAQS (ug/m ³)	Impact Greater Than AAQS?
PM ₁₀	Annual	2	23	25	50	NO
	24-hour	22	38	60	150	NO
CO	8-hour	871	3333	4204	10000	NO
	1-hour	2025	5555	7580	40000	NO
SO ₂	Annual	6	5	11	60	NO
	24-hour	78	13	91	260	NO
	3-hour	168	47	215	1300	NO

PSD Class II Increment Analysis

The PSD increment represents the amount that sources constructed after the PSD Baseline Dates, (February 8, 1988 for NO₂ and January 6, 1975 for PM₁₀ and SO₂), may increase ambient ground level concentrations of a pollutant. Atmospheric dispersion modeling was performed to quantify the amount of PSD increment consumed in the Class II Area surrounding the facility for PM₁₀ and SO₂. The results of this analysis are shown in the table below. Maximum PM₁₀ and SO₂ concentrations predicted for the proposed project at receptors in the Class II Area do not show any impacts greater than the PSD Class II increments for the corresponding averaging periods. Therefore, the proposed project will not contribute to a violation of the Class II increment for PM₁₀ or SO₂, and may be permitted by Department rules.

PSD CLASS II INCREMENT ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m ³)	Allowable Increment (ug/m ³)	Impact Greater Than Allowable Increment?
PM ₁₀	Annual	1	17	NO
	24-hour	22	30	NO
SO ₂	Annual	3	20	NO
	24-hour	77	91	NO
	3-hour	168	512	NO

3.4 ADDITIONAL IMPACTS ANALYSIS

Impact On Soils, Vegetation, And Wildlife

The maximum ground-level concentrations predicted to occur for all regulated pollutants, as a result of the proposed project, including background concentrations and all other nearby sources, will be less than the respective ambient air quality standard (AAQS). The project impacts are less than the AAQS for all regulated pollutants, and less than the applicable allowable increments for all regulated pollutants.

Because the AAQS are designed to protect both the public health and welfare, it is reasonable to assume the impacts on soils, vegetation, and wildlife will be minimal or insignificant.

Impact On Visibility

Due to the close proximity of this project to the ENP Class I Area, a regional haze analysis was performed. The CALPUFF dispersion model was recommended by the Department of the Interior for use this regional haze analyses because of its ability to handle atmospheric chemical transformations as well as wet/dry deposition. The results indicate that the proposed project will not have an adverse impact on visibility and regional haze in the ENP.

Growth-Related Air Quality Impacts

There will be no significant short-term increase in the labor force to construct the project which will not result in significant commercial and residential growth in the vicinity of the project.

4 BACT DETERMINATION REQUESTED BY THE APPLICANT

The applicant proposed that BACT does not apply to this project because the process components (three juice extractors) undergoing physical change (installation) have little associated emissions. The applicant did not request the relaxation of any current federally enforceable production or process limits on the existing emissions units, except for three existing d-limonene storage tanks. The applicant did not propose BACT for the existing tanks. The applicant acknowledges that the other existing emissions units—steam boilers, peel dryer and pellet coolers—may experience an increase in actual hours of operation or production rates as a result of this project, but previous permits either imposed no limit on these parameters or the existing permitted capacities are sufficient to accommodate the change. The applicant proposed that because these emissions units will not be modified (undergo a physical change or change in the method of operation as defined by federal rules), BACT will not apply to these units.

5 BACT ANALYSIS AND DEPARTMENT'S DETERMINATION - JUICE EXTRACTORS

The BACT evaluation should be performed for each emissions unit and pollutant under consideration. For this project the PSD pollutants of concern are PM/PM₁₀, SO₂, NO_x, CO, and VOC. The project results in a net emissions increase greater than the significant emission rates for PM/PM₁₀, SO₂, NO_x, CO and VOC because of collateral emissions increases from existing permitted emissions units. However, for this project, no emissions unit is being constructed. The only modification requested is a relaxation on throughput and removal of the VOC emissions limit for three 24,000 gallon storage tanks for d-limonene, a byproduct of the citrus oil recovery process. No detailed BACT evaluation was required for the tanks. This is discussed further below.

The process equipment to be installed for this project are three juice extractors. Juice extractors derive citrus juice from washed and graded citrus fruits by mechanically squeezing or reaming the juice out of whole or halved fruits. Other products of this operation are peel oil, pulp, peel, rag and seeds. The juice is further processed by other equipment at the facility to produce pasteurized single-strength juice or frozen concentrated juice. The peel, pulp rag and seeds are further processed by other equipment at the facility into other products and byproducts, including boxed pulp, pulp wash, animal feed and citrus molasses.

The Department considers juice extractors at citrus processing facilities to be process equipment, not emissions units. There is no stack or emission point associated with the juice extraction process, and the process equipment is not designed or intended to emit air pollutants. The juice extraction process and subsequent conveying of its products are enclosed and provide little opportunity for fugitive emissions of

the only pollutant potentially emitted, VOC from citrus oil. VOC may escape the process equipment in small amounts that are fugitive in nature and not directly quantifiable; the odor of citrus fruit is typically present in the extractor room of citrus processing facilities, which would indicate the presence of aromatic oils in the air. However, this may also be the result of fruit washing, grading and conveying prior to the fruit entering the extractors. The Department believes the potential emissions of VOCs from the extractors are very low, although there is no data quantifying these emissions. Control of these emissions is already accomplished by the enclosures intrinsic to the juice extractors, and further control is not reasonable. Although this project results in a physical change to the facility by the addition of the three juice extractors, the applicant is not constructing emissions units. The applicant requested the relaxation of current federally enforceable throughput limits for three existing 24,000 gallon d-limonene storage tanks, from 500,000 gallons to 1,000,000 gallons per year; and removal of the existing VOC emissions limit of 3636.8 pounds per year (1.82 TPY). The existing tanks are enclosed, maintained in good condition, and painted a light color. Because potential emissions of VOC from the tanks are inherently small (future potential emissions are 2.49 TPY per the TANKS model), there are no add-on control technologies available to reduce emissions further in a cost effective manner, and the Department is not requiring a more detailed BACT analysis or installation of control technology for VOC emissions from the tanks. The Department is requiring that the tanks be maintained in good condition and not painted a dark color as BACT. No other existing emissions units are undergoing construction or modification, as defined by Department rule. Since BACT applies only to those emissions units that undergo construction or modification, BACT does not apply to any of the other emissions units at the facility for this project.

The permit allows the installation of the juice extractors, but imposes facility-wide limitations on citrus fruit processing capacity and citrus oil recovery of the facility to limit potential emissions from the facility's existing emissions units, and also imposes specific requirements to limit potential emissions of particulate matter from the peel dryer and pellet coolers to conform to the assumptions used in performing impact modeling which provide for PSD increment values for PM₁₀ to not be exceeded. The permit allows the requested change in the annual throughput limit of d-limonene for the three existing storage tanks from 500,000 gallons to 1,000,000 gallons per consecutive 12 month period. The permit removes the existing VOC emissions limit from these tanks because the original limits were not imposed to avoid any regulatory requirement, and there was no compliance requirement associated with the emission limits other than maintaining throughput records. The four existing fuel oil storage tanks, which are included with the d-limonene tanks in emissions unit 006, were previously limited to total VOC emissions of 136.9 pounds per year. Although not specifically requested by the applicant, the Department removed these limits as well in this permit; existing fuel oil throughput limits are not changed by this permit so potential emissions will not increase. Emissions from the tanks will continue to be tracked as required by the Department's annual operating report requirements. No NSPS requirements for the storage tanks are changed by this permit. This permit does not change any limit imposed by previous permits for the steam generating units or lime silo at the facility.

In addition to the information submitted by the applicant in its application and that information mentioned above, the Department may rely upon other available information in making its BACT determination. For this project, the Department also relied upon its own interpretation of its rules, to which this source is subject. Although the Department believes that its rules and not federal rules are the pertinent rules for this review, the Department also reviewed EPA's guidance regarding the application of BACT and debottlenecking. The Department's BACT determination documented above is based on this information and the informed judgement of the Department.

6 MACT DETERMINATION

As discussed in Section II of the permit, although the applicant indicated that the facility is a major source of HAP emissions, this facility is not subject to a case-by-case MACT determination for control of emissions of HAPs. The applicant is not required to provide, and did not provide, estimated annual potential emissions of regulated hazardous air pollutants (HAPs).

Rule 62-204.800(10)(d)2, F.A.C., generally requires a MACT review for all major sources of HAPs that are to be constructed or reconstructed. In this case, no source of HAPs is proposed to be constructed or reconstructed, so this project is not subject to a case-by-case MACT determination.

7 EXCESS EMISSIONS AND COMPLIANCE REQUIREMENTS

Excess emissions are not changed or limited by this permit except for the pellet coolers, emissions units 004, 005 and 009, which are allowed no permitted excess emissions for startup and shutdown.

The permit imposes limitations on process rates and emissions to limit potential emissions to those levels described in the permit upon which impact analyses were conducted. Specific requirements and compliance methods are detailed in Sections II and III of the permit.

8 PRELIMINARY DETERMINATION

Based on the foregoing technical evaluation of the application submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations. The Department's preliminary determination is to issue the draft permit to allow installation of three additional juice extractors, subject to the terms and conditions of the draft permit.

9 FINAL DETERMINATION

^DRAFT (This section will be revised when a final permit is issued for this project.)

DETAILS OF THIS ANALYSIS MAY BE OBTAINED BY CONTACTING:

Joseph Kahn, P.E.
Department of Environmental Protection
Bureau of Air Regulation
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114

Recommended By:

Approved By:

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Howard L. Rhodes, Director
Division of Air Resources Management

Date:

Date:

PERMITTEE

Southern Gardens Citrus Processing Corp.
PO Box 130
Clewiston, Florida 33440

Permit No.	0510015-007-AC, PSD-FL-299
Project	Addition of 3 Juice Extractors
SIC No.	2037
Expires:	^DRAFT

Authorized Representative:

Tristan Chapman, VP and General Manager

PROJECT AND LOCATION

This permit authorizes Southern Gardens Citrus Processing Corp. to install three additional citrus juice extractors at its existing citrus processing facility, raising the total number of extractors to thirty nine.

This facility is located at 755 County Road 833, Clewiston, Hendry County. The UTM coordinates are: Zone 17; 487.5 km E and 2958.0 km N.

STATEMENT OF BASIS

This construction/PSD permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to make physical changes in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

APPENDICES

The attached appendices are a part of this permit:

Appendix B BACT/MACT Determination Summary
Appendix GC General Permit Conditions

DRAFT

Howard L. Rhodes, Director
Division of Air Resources
Management

AIR CONSTRUCTION PERMIT
SECTION I. FACILITY INFORMATION

FACILITY DESCRIPTION, PROJECT DETAILS AND RULE APPLICABILITY

This facility consists of an existing citrus processing facility that extracts juice from whole citrus fruit to produce single-strength and frozen concentrated juices and byproducts of juice production such as citrus oils, citrus molasses and animal feed.

The applicant proposed in this project to install three additional juice extractors, bringing the total number of juice extractors at the facility to thirty nine. This will raise the annual processing capacity of the facility to 20 million boxes of citrus fruit per year (based on 90 pounds of oranges or 85 pounds of grapefruit per box).

The emissions increases associated with this project were estimated by the applicant as follows in tons per year:

Pollutant	Actual Emissions ¹	Potential Emissions ²	Net Increase	PSD Significance	Subject to PSD?
PM	17.1	115.3	98.2	25	Yes
PM ₁₀	14.8	113.2	98.4	15	Yes
SO ₂	41.3	266.7	225.4	40	Yes
NO _x	25.1	102.3	77.2	40	Yes
CO	629 ³	2892 ³	2263	100	Yes
VOC	1189	2029 ³	840	40	Yes

¹ Actual emissions were estimated by the applicant for the 1998 and 1999 calendar years from annual operation reports.

² Potential emissions were estimated by the applicant given current permit limits. Potential emissions do not include standby units—boiler 4, operation of which is limited by existing permits, and pellet coolers 1 and 2, operation of which is limited by this permit.

³ VOC emissions are estimated by material balance, except for d-limonene tanks which are from TANKS model. The applicant assumed oil that is unaccounted for is destroyed in the dryer; this permit does not provide for destruction efficiency. Potential CO emissions are estimated to be 160% of VOC emissions based on limited data. Actual emissions were estimated using historic test data.

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, F.S., and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The existing facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment or unclassifiable for the criteria pollutants ozone, PM₁₀, carbon monoxide, SO₂, nitrogen dioxide and lead. This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant exceeds 100 tons per year (TPY). At this facility potential emissions of PM/PM₁₀, SO₂, NO_x, CO and VOC exceed 100 TPY.

This facility is not within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 250 TPY for at least one criteria pollutant, the facility is also an existing Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). The net increase in emissions of PM/PM₁₀, SO₂, NO_x, CO and VOC exceed the PSD significance levels of Table 212.400-2, F.A.C. Therefore the project is subject to PSD requirements of Rule 62-212.400, F.A.C., for these pollutants. The project results in these net emissions increases because of collateral emissions increases from existing permitted emissions units, rather than emissions

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SECTION I. FACILITY INFORMATION

from the new juice extractors. The project is subject to a BACT determination for the three existing d-limonene storage tanks, as discussed in the Department's Technical Evaluation and BACT/MACT Determination. Briefly, although this project results in a physical change to the facility by the addition of the three juice extractors, the applicant is not constructing emissions units, and the applicant's requested relaxation of current federally enforceable limits on the existing d-limonene storage tanks does not result in a requirement to install control technology.

This permit allows the installation of the juice extractors, but imposes facility-wide limitations on citrus fruit processing capacity and citrus oil recovery of the facility to limit potential emissions from the facility's existing emissions units. These limits are established in Section II of this permit. This permit also imposes specific requirements to limit potential emissions of particulate matter from the peel dryer and pellet coolers to conform to the assumptions used in performing impact modeling which provide for PSD increment values for PM₁₀ to not be exceeded. These limits are established in Section III of this permit. The permit allows the requested change in the annual throughput limit of d-limonene for the three existing storage tanks from 500,000 gallons to 1,000,000 gallons per consecutive 12 month period. The permit removes the existing VOC emissions limit from these tanks and the four existing fuel oil storage tanks, which are included in emissions unit 006. No NSPS requirements for the storage tanks are changed by this permit. The fuel oil throughput limits of previous permits are not changed by this permit, so potential emissions from these tanks will not change. This permit does not change any limit imposed by previous permits for the steam generating units or lime silo at the facility.

The applicant stated that this facility is a major source of hazardous air pollutants (HAPs). This project is not subject to a case-by-case MACT determination, per Rule 62-204.800(10)(d)2, F.A.C., because it does not result in the construction or reconstruction of a major source of HAP emissions.

This project does not impose any requirements under the New Source Performance Standards, 40 CFR 60, or National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61 or 63.

REVIEWING AND PROCESS SCHEDULE

September 5, 2000	Received permit application and fee
September 5, 2000	Application complete
^DRAFT	Distributed Notice of Intent to Issue and supporting documents
^DRAFT	Notice of Intent published in ^

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Permit application
- Department's Technical Evaluation and BACT/MACT Determination
- Department's Intent to Issue

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SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

The following specific conditions apply to all emissions units at this facility addressed by this permit after installation of any or all of the three additional juice extractors. The throughput and oil recovery limitations shall apply to the facility as a whole. These conditions shall supplement conditions imposed by previous permitting actions. Where conflicts occur between these conditions and those of previous permitting actions, the more stringent condition or requirement shall prevail.

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, phone number 850/488-0114. All documents related to reports, tests, minor modifications and notifications shall be submitted to the Department's South District office at PO Box 2549, Fort Myers, Florida 33902-2549, and phone number 941-332-6975.
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Expiration: This air construction permit shall expire on ^DRAFT. The permittee, for good cause, may request that this construction/PSD permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C.]

PSD Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may

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SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

extend the 18-month period upon a satisfactory showing that an extension is justified. [Rules 62-4.070(4), 62-4.210(2) & (3), and 62-210.300(1)(a), F.A.C.]

BACT Determination Review: In conjunction with extension of the 18 month periods to commence or continue construction, extension of the permit expiration date, or where construction is conducted in two or more phases, the permittee may be required to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for the source. [Rules 62-4.070(4), 62-4.210(2) & (3), 62-210.300(1)(a), and 62-212.400(6)(b), F.A.C.]

7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
8. Title V Operation Permit Revision Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit revision is required to reflect new limitations on emissions for the pellet coolers. The owner or operator shall apply for a Title V operation permit at least ninety days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's South District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

EMISSION LIMITING STANDARDS

9. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]
10. Unconfined Emissions of Particulate Matter: [Rule 62-296.320(4)(c), F.A.C.]
 - (a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
 - (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
 - (c) Reasonable precautions include the following:
 - Paving and maintenance of roads, parking areas and yards.
 - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.

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SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

- Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 - Landscaping or planting of vegetation.
 - Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
 - Confining abrasive blasting where possible.
 - Enclosure or covering of conveyor systems.
- (d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

11. General Pollutant Emission Limiting Standards: [Rule 62-296.320(1)(a)&(2), F.A.C.]

- (a) No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
- (b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Note: An objectionable odor is defined in Rule 62-210.200(198), F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.]

OPERATIONAL REQUIREMENTS

12. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's district office and, if applicable, appropriate local program. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]
13. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]
14. Excess Emissions: Except for the pellet coolers, emissions units 004, 005 and 009, this permit neither does not change any authorization for excess emissions provided by other Department permits. This permit specifically limits periods of excess emissions for the pellet coolers. Excess emissions are not permitted by this permit for the pellet coolers, emissions units 004, 005 and 009, for any duration for startup and shutdown. [Rule 62-210.700(5), F.A.C.]

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

15. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
16. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
17. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
18. Test Procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C. [Rule 62-297.310(4), F.A.C.]
19. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]
 - (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
 - (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
20. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health

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SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. [Rule 62-297.310(6), F.A.C.]

21. Test Notification: The owner or operator shall notify the Department's district office and, if applicable, appropriate local program, at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9., F.A.C.]
22. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

23. Duration of Record Keeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]
24. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
25. Excess Emissions Report: In case of excess emissions resulting from malfunction, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rules 62-4.130 and 62-210.700(6), F.A.C.]
26. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

South District office and, if applicable, the appropriate local program by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

27. Fruit Throughput Limited: The owner or operator shall not process more than 20.0 million boxes of citrus fruit in any consecutive 12 month period. For purposes of this permit, a box of citrus fruit shall be defined to contain 90 pounds of oranges or 85 pounds of grapefruit. The owner or operator shall make and maintain monthly and rolling 12 month records of fruit processing rates to demonstrate compliance with this limitation. Such records shall be made from daily processing records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C.]
28. Minimum Oil Recovery Required: The owner or operator shall recover a minimum of 50.0 percent of oil from citrus fruits processed during each consecutive 12 months of operation, as determined by the following methodology.

Measurement of recovery of oil from citrus fruits processed shall be by material balance using the measured oil in the incoming fruit, divided into the sum of the oil remaining in juice, the cold press oil recovered, d-limonene recovered, and oil remaining in the dried pellets, expressed as a percentage. Alternatively, the material balance may use the measured oil in the incoming fruit divided into the oil measured remaining in the pressed peel prior to introduction into the feed mill dryers, in which case the decimal result shall be subtracted from the numeral 1, and added to the decimal result of the measured oil in the incoming fruit divided into the oil measured remaining in the dried pellets, with the resulting sum expressed as a percentage. Measurement of recovery of oil shall be made each operational day and averaged over the days of facility operation during each month, the monthly averages shall be averaged to calculate the consecutive 12 month oil recovery. Monthly records shall be completed no later than the 10th day of each following month. The owner or operator shall elect to use one of the above material balance methods and shall not change methods without approval from the Department's Bureau of Air Regulation.

The owner or operator may accept wet peel from offsite sources for drying, provided that the owner or operator receives sufficient recorded information from the offsite source to measure available oil and oil recovery at the offsite source, and accounts for those values in determining compliance with the limitation of this paragraph. Wet peel not processed through the peel dryer shall be excluded from the oil recovery calculations. Methodologies for determining oil contents shall be submitted by the owner or operator to the Department's Bureau of Air Regulation for approval prior to beginning record keeping pursuant to this condition. [Rule 62-4.070(3), F.A.C.]

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SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection A. The following specific conditions apply to the following emissions units after installation of any or all of the three additional juice extractors. These conditions shall supplement conditions imposed by previous permitting actions. Where conflicts occur between these conditions and those of previous permitting actions, the more stringent condition or requirement shall prevail.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
004	Pellet cooler number 1, venting through cyclone 1
005	Pellet cooler number 2, venting through cyclone 2
009	Pellet cooler number 3, venting through cyclone 1

[Note: These emissions units are subject to the requirements of the state rules as indicated in this permit.]

OPERATIONAL REQUIREMENTS

1. Hours of Operation: These emissions units shall operate no more than 6000 hours during any consecutive 12 month period. [Rules 62-4.070(3), 62-210.200 and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]
2. Operation Limited: The owner or operator shall only operate either: pellet coolers 1 and 2 together (emissions units 004 and 005), or pellet cooler 3 alone (emissions unit 009). [Rules 62-4.070(3) and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

3. Particulate Emissions Limited: Emissions of particulate matter (PM/PM₁₀) from pellet coolers 1 and 2 together (emissions units 004 and 005), or pellet cooler 3 alone (emissions unit 009), shall not exceed 5.0 pounds per hour. [Rules 62-4.070(3) and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

4. Emission Tests Required: The owner or operator shall demonstrate compliance with the particulate emissions limit of this section by testing the emissions units initially and prior to renewal of each operation permit using Method 5 of 40 CFR 60 Appendix A, assuming that all particulate matter is PM₁₀. [Rules 62-4.070(3) and 62-297.310, F.A.C., required to monitor compliance with the limitation on potential to emit]

REPORTING AND RECORD KEEPING REQUIREMENTS

5. Records of Operation Required: The owner or operator shall make and maintain records of hours of operation of each pellet cooler in units of hours per month and hours per consecutive 12 month period, to demonstrate compliance with the limit of condition 1 of this section. The records shall also detail which pellet cooler(s) were in operation during the operating period recorded, to demonstrate compliance with the requirements of condition 2 of this section. Records shall be made from daily operation records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C., required to monitor compliance with the limitation on potential to emit]

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection B. The following specific conditions apply to the following emissions unit after installation of any or all of the three additional juice extractors. These conditions shall supplement conditions imposed by previous permitting actions. Where conflicts occur between these conditions and those of previous permitting actions, the more stringent condition or requirement shall prevail.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
003	Citrus feed mill peel dryer/waste heat evaporator

[Note: This emissions unit is subject to the requirements of the state rules as indicated in this permit. This permit does not change the particulate emission limit of Rule 62-296.320(4)(a), F.A.C., (process weight table) or annual compliance testing frequency established by previous permits. This permit limits the input of pressed (wet) peel in order to limit potential emissions of PM/PM₁₀ to 32.05 pounds per hour and 96.15 tons per year. All PM is assumed to be PM₁₀.]

OPERATIONAL REQUIREMENTS

1. Hours of Operation: This emissions unit shall operate no more than 6000 hours during any consecutive 12 month period. [Rules 62-4.070(3), 62-210.200 and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]
2. Operation Limited: The rate of pressed peel input to the dryer shall not exceed 47 tons per hour, including the weight of moisture in the pressed peel, on a daily average basis. [Rules 62-4.070(3) and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]

REPORTING AND RECORD KEEPING REQUIREMENTS

3. Records of Operating Hours Required: The owner or operator shall make and maintain records of hours of operation of this emissions unit in units of hours per month and hours per consecutive 12 month period, to demonstrate compliance with the limit of condition 1 of this section. Records shall be made from daily operation records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C., required to monitor compliance with the limitation on potential to emit]
4. Records of Input Rate Required: The owner or operator shall make and maintain records of the average rate of pressed peel input to the dryer, to demonstrate compliance with the requirements of condition 2 of this section. Records shall be made each day by dividing that day's total input rate of peel by that day's hours of operation of the dryer. [Rule 62-4.070(3), F.A.C., required to monitor compliance with the limitation on potential to emit]
5. Records of Operation of Dryer Bypass Stack Required: The owner or operator shall make records of the number of hours each day that the dryer is operated with emissions directed in total or in part through the bypass stack. The number of hours of bypass stack operation recorded each calendar quarter shall be reported to the South District office no later than the 10th day following each calendar quarter. [Rule 62-4.070(3), F.A.C.]

[Note: Excess emissions are limited by Rule 62-210.700, F.A.C., and previous Department permits. Those limitations are not changed by this permit.]

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection C. The following specific conditions apply to the following emissions unit after installation of any or all of the three additional juice extractors. These conditions shall revise conditions imposed by previous permitting actions. Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
006	Seven volatile organic liquid storage tanks

[Note: This emissions unit is subject to the requirements of the state rules as indicated in this permit. Although subject to a BACT determination, no add-on control technology for the existing d-limonene storage tanks is required by this permit. This permit changes the throughput limit for d-limonene for three existing 24,000 gallon storage tanks from 500,000 gallons to 1,000,000 gallons per consecutive 12 month period. This permit also removes any emission limit for VOC from these d-limonene tanks and the four existing fuel oil storage tanks. This permit does not change any NSPS requirement imposed by previous permits and does not change any throughput limit for the fuel oil storage tanks imposed by previous permits. Potential emissions from the d-limonene tanks is 2.49 tons per year based on modeling conducted with EPA's TANKS model. Because throughput limits for the fuel oil storage tanks are not changed by this permit, potential emissions from those tanks will not change.]

OPERATIONAL REQUIREMENTS

1. d-limonene Tank Operation Requirements: The rate of throughput of d-limonene in all three existing tanks combined shall not exceed one million gallons in any consecutive 12 month period. No liquid other than d-limonene shall be put through the existing three tanks, and the tanks shall be maintained in good condition, and shall not be painted a dark color. [Rules 62-4.070(3) and 62-212.400, F.A.C., BACT and limitation on potential to emit]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

2. VOC Emissions No Longer Limited: Emissions of VOC from the three existing d-limonene storage tanks and the four existing fuel oil storage tanks shall not be limited. [Rule 62-4.070(3) and applicant request]

REPORTING AND RECORD KEEPING REQUIREMENTS

3. Records of Operation Required: The owner or operator shall make and maintain records of throughput of d-limonene in units of gallons per month and gallons per consecutive 12 month period, to demonstrate compliance with the throughput limit of condition 1 of this section. Records shall be made from daily operation records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C.]

APPENDIX B. BACT/MACT DETERMINATION SUMMARY

A complete discussion of the Department's technical evaluation and BACT/MACT determination is included in the document titled *Technical Evaluation and BACT/MACT Determination*. Following is a summary of the Department's control technology determinations pursuant to Rules 62-212.400, F.A.C., (BACT). None of the emissions units are subject to Rule 62-204.800(10)(d)2, F.A.C., (case-by-case MACT).

Emissions Unit	Pollutant	BACT Requirements
006, three d-limonene storage tanks	VOC	Maintain tanks in good condition and do not paint a dark color

Note: The fuel oil storage tanks of emissions units 006 are not subject to BACT.

The specific requirements associated with the BACT requirements are shown in Subsection C of Section III of the permit.

APPENDIX GC
GENERAL PERMIT CONDITIONS [RULE 62-4.160, F.A.C.]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

APPENDIX GC
GENERAL PERMIT CONDITIONS [RULE 62-4.160, F.A.C.]


The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.


- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology (X);
 - (b) Determination of Prevention of Significant Deterioration (X); and
 - (c) Compliance with New Source Performance Standards ().
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Memorandum

Florida Department of Environmental Protection

TO: Clair Fancy

THRU: Al Linero 

FROM: Joe Kahn 

DATE: October 11, 2000

SUBJECT: Southern Gardens Citrus Processing Corp.
0510015-007-AC, PSD-FL-299

Attached for approval and signature is the intent to issue for Southern Gardens Citrus Processing Corp. This project allows the addition of three juice extractors at Southern Gardens' existing facility. The permit also relaxes a throughput limit on three existing d-limonene tanks from 500,000 to 1 million gallons in any consecutive 12 month period, and removes the existing emission limits for these tanks and four fuel oil storage tanks. The existing limits on fuel oil throughput are not changed by this permit. The permit imposes limits on fruit throughput and requires a minimum level of 50% oil recovery. The only emissions sources undergoing modification for this project are the three d-limonene tanks, but because VOC emissions from these tanks are inherently small there are no cost-effective add-on controls. BACT is proper maintenance of the tanks and not painting the tanks a dark color.

I recommend your approval and signature.

October 11, 2000 is day 37 of the 90 day timeclock.

Attachments

/jk

The Clewiston News

Published Weekly

Clewiston, Florida

AFFIDAVIT OF PUBLICATION

State of Florida

County of Hendry

Before the undersigned authority, personally appeared Katrina Elsen, who on oath says she is the Executive Editor of the Clewiston News, a weekly newspaper published at Clewiston in Hendry County, Florida, that the attached copy of advertisement, being a Notice in

the matter of Intent to Issue

Air Construction Permit
RECEIVED in the

OCT 25 2000 court, was published in

said newspaper in the issue of October 18, 2000
BUREAU OF AIR REGULATION

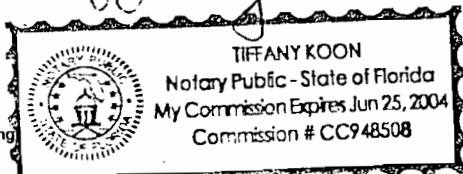
Affiant further says that the said Clewiston News is a newspaper published at Clewiston, in said Hendry County, continuously published in said Hendry County, Florida, each week, and has been entered as a second class mail matter at the post office in Clewiston, in said Hendry County, Florida, for a period of one year next preceding the first publication says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Katrina Elsen

Sworn to and subscribed before me this 18th day of October, A.D. 2000.

Tiffany Koon

Notary Public



PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0510015-007-AC, PSD-FL-299

Southern Gardens Citrus Processing Corp.

Addition of 3 Juice Extractors

Hendry County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Southern Gardens Citrus Processing Corp., to install three additional juice extractors at the existing facility located at 755 County Road 833, Clewiston, Hendry County. The applicant's mailing address is: PO Box 130, Clewiston, Florida 33440. A Best Available Control Technology (BACT) determination was required for this project pursuant to Rule 62-212.400, F.A.C., for three existing d-limonene storage tanks. The permit removes specific emission limits for volatile liquid storage tanks, but limits potential emission of air pollutants by limiting fruit throughput and operation of certain exiting emissions units at the facility.

An air quality impact was conducted. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards. The maximum predicted PSD Class II increments of SO₂ and PM₁₀ consumed by all sources in the area, including this project, will be as follows:

	<u>PSD Class II Increment Consumed (ug/m³)</u>	<u>Allowable Increment (ug/m³)</u>	<u>Percent Increment Consumed</u>
PM₁₀			
24-hour	22	31	73
Annual	1	17	6
SO₂			
3-hour	168	512	33
24-hour	77	91	85
Annual	3	20	15

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department Bureau of Air Regulation at 2600 Blair Stone Road, Mall Station #5505, Tallahassee, FL 32399-2400.

Any written comments filed shall be made available for public inspection. If written comments received result in a significant change to the proposed agency action, the Department shall revise the proposed permit and require, if applicable another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to section 120-569 and 120-57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office Of General Counsel of the Department at 3900 Commonwealth Boulevard, Mall Station #35, Tallahassee, FL, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below

must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any such shall be the address for service proposed during the course of the proceeding, and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when the petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modifications of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

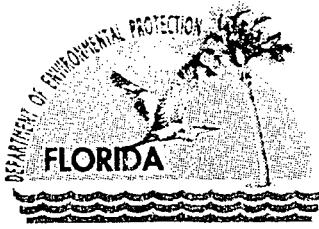
A petition that does not dispute the material facts upon which the Department's action is based shall state the no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 am to 5:00 pm, Monday through Friday, except legal holidays, at:

Department of Environmental Protection	Department of Environmental Protection
Bureau of Air Regulation	South Florida District
Suite 4, 111 S. Magnolia Drive	Suite 364, 2295 Victoria Avenue
Tallahassee, Florida 32301	Fort Myers, Florida 33901-3381
Telephone: 850/488-0114	Telephone: 941/332-6975
Fax: 850/922-6979	

The complete project file includes the application, technical evaluations, draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, or the Department's reviewing engineer for this project, Joseph Kahn, P.E., at the Bureau of Air Regulation in Tallahassee, Florida, or call 850/488-0114, for additional information. Written comments directed to the Department's reviewing engineer should be sent to the following mailing address: Dept. of Environmental Protection, Bureau of Air Regulation, Mail Station #5505, Tallahassee, Florida, 32399-2400.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

P.E. Certification Statement

Southern Gardens Citrus Processing Corp.
Addition of 3 Juice Extractors

DEP File No.: 0510015-007-AC, PSD-FL-299
Facility ID No.: 0510015

Project: Air Construction/PSD Permit

I **HEREBY CERTIFY** that the engineering features described in the above referenced application and related additional information submittals, if any, and subject to the proposed permit conditions, provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

This review was conducted by me.

(Seal)

Joseph Kahn, P.E.
Registration # 45268

10/11/00

Date

Permitting Authority:

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/922-6979

"More Protection, Less Process"

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 		A. Received by <i>(Please Print Clearly)</i>	B. Date of Delivery 10/16/00
1. Article Addressed to:		C. Signature X <i>Tristan Chapman</i>	
Mr. Tristan Chapman VP & Gen. Mgr. Southern Gardens Citrus Processing Corp. PO Box 130 Clewiston, FL 33440		<input type="checkbox"/> Agent <input type="checkbox"/> Addressee	
2. Article Number <i>(Copy from service label)</i> 7099 3400 0000 1453 1767		D. Is delivery address different from item 1? If YES, enter delivery address below:	
		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		3. Service Type <input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
		4. Restricted Delivery? <i>(Extra Fee)</i> <input type="checkbox"/> Yes	
PS Form 3811, July 1999		Domestic Return Receipt	
		102595-99-M-1789	

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
<i>(Domestic Mail Only; No Insurance Coverage Provided)</i>	
Article Sent To: Tristan Chapman, VP & Gen. Mgr.	
Postage \$	Southern Gardens
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees \$	Postmark Here
Name <i>(Please Print Clearly)</i> (to be completed by mailer) Tristan Chapman	
Street, Apt. No., or PO Box No. PO Box 130	
City, State, ZIP+4 Clewiston, FL 33440	
PS Form 3800, July 1999	See Reverse for Instructions

7099 3400 0000 1453 1767

Golder Associates Inc.

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

RECEIVED

SEP 05 2000

BUREAU OF AIR REGULATION



TRANSMITTAL LETTER

To: A. A. Linero
Florida Dept of Env. Protection
New Source Review Section
111 S. Magnolia Drive, Suite 4
Tallahassee, FL 32301

Date: September 5, 2000
Project No.: 0037568

Sent by: Pro Run Courier Service

- Mail
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Per: David Buff

Quantity	Item	Description
4	Permit Application	Southern Gardens PSD

Remarks:

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137



72114

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Sender's Signature

John Chinn

Receiver's Signature

J. AUSTINEE

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Golder Associates Fax

To: Joe Khan

Fax Number: 850-922-6979

Company: FDEP

Date: October 11, 2000

From: David Buff

e-mail: @golder.com

Our ref: 003-7568

Voice Mail:

RE:

Total pages (including cover): 8

Hard copy to follow

MESSAGE



6241 NW 23rd St., Suite 500
Gainesville, FL 32653
U.S.A.
Telephone: (352) 336-5600
Fax: (352) 336-6603

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Table A Current Actual and Future Maximum Emissions for d-Limonene Storage Tanks at Southern Gardens Processing Corporation

Tank	Year	Tank Volume (gallons)	Annual Throughput (gal/yr)	Annual VOC Losses		
				Working (TPY)	Breathing (TPY)	Total (TPY)
1998				Current Actual Emissions ^a		
d-Limonene Tank 1		24,000	153,563	0.18	0.41	0.56
d-Limonene Tank 2		24,000	153,563	0.18	0.41	0.56
d-Limonene Tank 3		<u>24,000</u>	<u>153,563</u>	<u>0.18</u>	<u>0.41</u>	<u>0.56</u>
d-Limonene Total		72,000	460,689	0.53	1.24	1.68
1999						
d-Limonene Tank 1		24,000	136,274	0.15	0.26	0.41
d-Limonene Tank 2		24,000	136,274	0.15	0.26	0.41
d-Limonene Tank 3		<u>24,000</u>	<u>136,274</u>	<u>0.15</u>	<u>0.26</u>	<u>0.41</u>
d-Limonene Total		72,000	408,822	0.45	0.78	1.23
				Average 1998-1999 =		1.46
Future				Future Maximum Emissions		
d-Limonene Tank 1		24,000	333,333	0.39	0.43	0.83
d-Limonene Tank 2		24,000	333,333	0.39	0.43	0.83
d-Limonene Tank 3		<u>24,000</u>	<u>333,333</u>	0.39	0.43	0.83
d-Limonene Total		72,000	1,000,000	1.18	1.30	2.49

^a Based on Annual Operating Reports submitted to FDEP.

SGDL1tank
Southern Gardens Citrus

Vertical Fixed Roof Tank
West Palm Beach, Florida

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification: SGDL1tank
City: West Palm Beach
State: Florida
Company: Southern Gardens Citrus
Type of Tank: Vertical Fixed Roof Tank
Description: D'Limonene Tank 1

Tank Dimensions

Shell Height (ft): 25.00
Diameter (ft): 12.50
Liquid Height (ft): 25.00
Avg. Liquid Height (ft): 12.50
Volume (gallons): 24,000.00
Turnovers: 13.69
Net Throughput (gal/yr): 333,333.00
Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: Aluminum/Diffuse
Shell Condition: Good
Roof Color/Shade: Aluminum/Diffuse
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 1.00
Slope (ft/ft) (Cone Roof): 0.16

Breather Vent Settings

Vacuum Settings (psig): -0.03
Pressure Settings (psig): 0.03

Meteorological Data used in Emissions Calculations: West Palm Beach, Florida (Avg Atmospheric Pressure = 14.75 psia)

TANKS 4.0
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Pressures (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
d-Limonene	All	83.30	74.05	92.55	77.32	0.7318	0.2508	1.2128	138.0000			136.00	

TANKS 4.0
Emissions Report - Detail Format
Detail Calculations (AP-42)

Annual Emission Calculations	
Standing Losses (lb):	898.6563
Vapor Space Volume (cu ft):	1,574.8889
Vapor Density (lb/cu ft):	0.0171
Vapor Space Expansion Factor:	0.1325
Vented Vapor Saturation Factor:	0.6677
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	1,574.8889
Tank Diameter (ft):	12.5000
Vapor Space Outage (ft):	12.8333
Tank Shell Height (ft):	25.0000
Average Liquid Height (ft):	12.5000
Roof Outage (ft):	0.3333
Roof Outage (Cone Roof)	
Roof Outage (ft):	0.3333
Roof Height (ft):	1.0000
Roof Slope (ft/ft):	0.1600
Shell Radius (ft):	6.2500
Vapor Density	
Vapor Density (lb/cu ft):	0.0171
Vapor Molecular Weight (lb/lb-mole):	136.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.7318
Daily Avg. Liquid Surface Temp. (deg. F):	542.8742
Daily Average Ambient Temp (deg. F):	74.7157
Ideal Gas Constant R (psia-cuft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	536.9887
Tank Paint Solar Absorbance (Shell):	0.6000
Tank Paint Solar Absorbance (Roof):	0.6000
Daily Total Solar Insolation Factor (Btu/sqft day):	1,534.5472
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.1325
Daily Vapor Temperature Range (deg. R):	37.0004
Daily Vapor Pressure Range (psia):	0.8920
Breather Vent Press. Setting Range (psia):	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.7318
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia)	
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.2508
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia)	
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	1.2128
Daily Avg. Liquid Surface Temp. (deg. R):	542.8742
Daily Min. Liquid Surface Temp. (deg. R):	533.7241
Daily Max. Liquid Surface Temp. (deg. R):	562.2243
Daily Ambient Temp. Range (deg. R):	16.2833
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.6677
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.7318

SGDL1 tank
Southern Gardens Citrus

Vertical Fixed Roof Tank
West Palm Beach, Florida

TANKS 4.0
Emissions Report - Detail Format
Detail Calculations (AP-42)-(Continued)

Vapor Space Outage (R):	12.9333
Working Losses (lb):	788.9788
Vapor Molecular Weight (lb/lb-mole):	138.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.7318
Annual Net Throughput (gal/yr):	333,333.0000
Number of Turnovers:	19.8900
Turnover Factor:	1.0000
Maximum Liquid Volume (gal):	24,000.0000
Maximum Liquid Height (ft):	25.0000
Tank Diameter (ft):	12.5000
Working Loss Product Factor:	1.0000
Total Losses (lb):	1,658.5349

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

Components	Losses(lbs)		
	Working Loss	Breathing Loss	Total Emissions
d-Limonene	789.68	868.66	1,658.33

SGDL1tank
Southern Gardens Citrus

Vertical Fixed Roof Tank
West Palm Beach, Florida

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

Components	Losses(lbs)		Total Emissions
	Working Loss	Breathing Loss	
d-Limonene	789.38	868.66	1,658.53

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 28-Sep-2000 04:08pm

From: Cleve Holladay TAL 850/488-134
HOLLADAY_C@A1

Dept:

Tel No:

To: Joseph Kahn

(Joseph.Kahn@dep.state.fl.us)

Subject: NPS Review of Southern Gardens Permit Application

Joe, I spoke to Dee Morse of the National Park Service today and he said they would have no comments either on the BACT or the modeling on this application. Don Sheppard and John Notar have looked at this.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

September 8, 2000

Mr. Gregg Worley, Chief
Air, Radiation Technology Branch
Preconstruction/HAP Section
U.S. EPA – Region 4
61 Forsyth Street
Atlanta, Georgia 30303

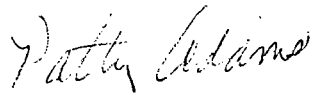
RE: Southern Gardens Citrus Processing Corporation
Clewiston, Florida
PSD-FL-299
Facility ID No. 0510015-007-AC

Dear Mr. Worley:

Enclosed for your review and comment is an application for construction of a PSD source. The applicant, Southern Gardens Citrus Processing Corporation, proposes to add three (3) extractors to the existing thirty-six (36) extractors at their existing facility in Hendry County, Florida.

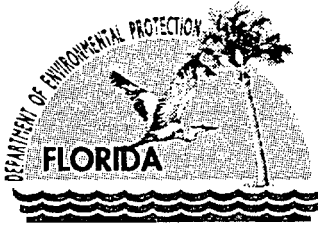
Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/922-6979. If you have any questions, please contact the project engineer, Joe Kahn, at 850/921-9519.

Sincerely,

for 
Al Linero, P.E.
Administrator
New Source Review Section

AAL/jka

Enclosures



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

September 8, 2000

Mr. John Bunyak, Chief
Policy, Planning & Permit Review Branch
NPS – Air Quality Division
Post Office Box 25287
Denver, Colorado 80225

RE: Southern Gardens Citrus Processing Corporation
Clewiston, Florida
PSD-FL-299
Facility ID No. 0510015-007-AC

Dear Mr. Bunyak:

Enclosed for your review and comment is an application for construction of a PSD source. The applicant, Southern Gardens Citrus Processing Corporation, proposes to add three (3) extractors to the existing thirty-six (36) extractors at their existing facility in Hendry County, Florida.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/922-6979. If you have any questions, please contact the project engineer, Joe Kahn, at 850/921-9519.

Sincerely,

Al Linero, P.E.
Administrator
New Source Review Section

AAL/jka

Enclosures

Golder Associates Inc.

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

RECEIVED

SEP 05 2000

BUREAU OF AIR REGULATION



TRANSMITTAL LETTER

To: A. A. Linero
Florida Dept of Env. Protection
New Source Review Section
111 S. Magnolia Drive, Suite 4
Tallahassee, FL 32301

Date: September 5, 2000
Project No.: 0037568

Sent by: Pro Run Courier Service

- | | |
|--|--|
| <input type="checkbox"/> Mail | <input type="checkbox"/> UPS |
| <input type="checkbox"/> Air Freight | <input type="checkbox"/> Federal Express |
| <input checked="" type="checkbox"/> Hand Carried | |

Per: David Buff

Quantity	Item	Description
4	Permit Application	Southern Gardens PSD

Remarks:

F:\Projects\2000\0037\0037568Y Southern Gardens\F1\WP\#31ot.doc

PRO-RUN

courier service

P.O. BOX 140485 Gainesville, FL. 32614-0485
 Owned and operated by W.W. Consultants, Inc.
 Gainesville 375-8583 Toll Free 1-800-777-6786

72114

Sender Receiver \$ _____
 Bill Charges To: COD

Sender <i>COLLEEN ACS</i>			Receiver <i>FRED DARDI</i>		
Street Address <i>4211 NW 23 ST</i>			Street Address <i>111 SOUTH MAGNOLIA ST</i>		
City <i>GUN</i>		Zip	City <i>TALL</i>		Zip
Driver 1 <i>WA</i>	P.U. Time <i>0958</i>	Date <i>9-5</i>	Driver 2	Del. Time <i>1137</i>	Date <i>9-5</i>

Pieces Description of Contents / Weight / Job #'s / STAT / Special Instructions / etc:
1 Box

It is agreed and understood that the liability of Pro Run is limited to no more than the charge for this transaction.

Sender's Signature
[Signature]

Receiver's Signature
[Signature]

RECEIVED

SFP 06 2000

BUREAU OF AIR REGULATION

Golder Associates Inc.

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



TRANSMITTAL LETTER

**To: A. A. Linero
Florida Dept of Env. Protection
New Source Review Section
111 S. Magnolia Drive, Suite 4
Tallahassee, FL 32301**

**Date: September 5, 2000
Project No.: 0037568**

Sent by: Pete Calamore

- Mail
- Air Freight
- Hand Carried

- UPS
- Federal Express

Per: David Buff

Quantity	Item	Description
1	PSD Permit Application for Extractors Addition	Southern Gardens Citrus Processing Corporation
1	check	\$7500

Remarks:

F:\Projects\2000\0037\0037568Y Southern Gardens\FI\WP#8lot.doc

RECEIVED

SEP 05 2000

BUREAU OF AIR REGULATION

**PSD PERMIT APPLICATION
FOR EXTRACTORS 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**

**September 2000
0037568Y/F1**

DISTRIBUTION:

4 Copies - FDEP

3 Copies - Southern Gardens

2 Copies - Golder Associates Inc.

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: 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:	9-0-00
2. Permit Number:	0510015-007-AC
3. PSD Number (if applicable):	PSD-FL-299
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: 765 CR 893 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> <div style="display: flex; justify-content: space-between;"> <div style="text-align: center;">  <hr/> Signature </div> <div style="text-align: center;"> 8/31/00 <hr/> Date </div> </div>

* 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

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

3

0037568Y/F1/TV
7/28/00

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.

Signature

(seal)

Date

* Attach any exception to certification statement.

Construction/Modification Information

1. Description of Proposed Project or Alterations:

This application is for a PSD permit for the addition of three (3) extractors to the existing thirty-six (36) extractors.

2. Projected or Actual Date of Commencement of Construction: **1 Sep 2000**

3. Projected Date of Completion of Construction: **1 Nov 2000**

Application Comment

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.	

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

Title V Core List

Effective:03/25/97

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

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

<p>1. Area Map Showing Facility Location: <input checked="" type="checkbox"/> Attached, Document ID: <u>SG-FE-1</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>2. Facility Plot Plan: <input checked="" type="checkbox"/> Attached, Document ID: <u>SG-FE-2</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>3. Process Flow Diagram(s): <input checked="" type="checkbox"/> Attached, Document ID: <u>SG-FE-3</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>5. Fugitive Emissions Identification: <input checked="" type="checkbox"/> Attached, Document ID: <u>PSD Report</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>6. Supplemental Information for Construction Permit Application: <input checked="" type="checkbox"/> Attached, Document ID: <u>PSD Report</u> <input type="checkbox"/> Not Applicable</p>
<p>7. Supplemental Requirements Comment:</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

ATTACHMENT SG-FE-1
AREA MAP



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

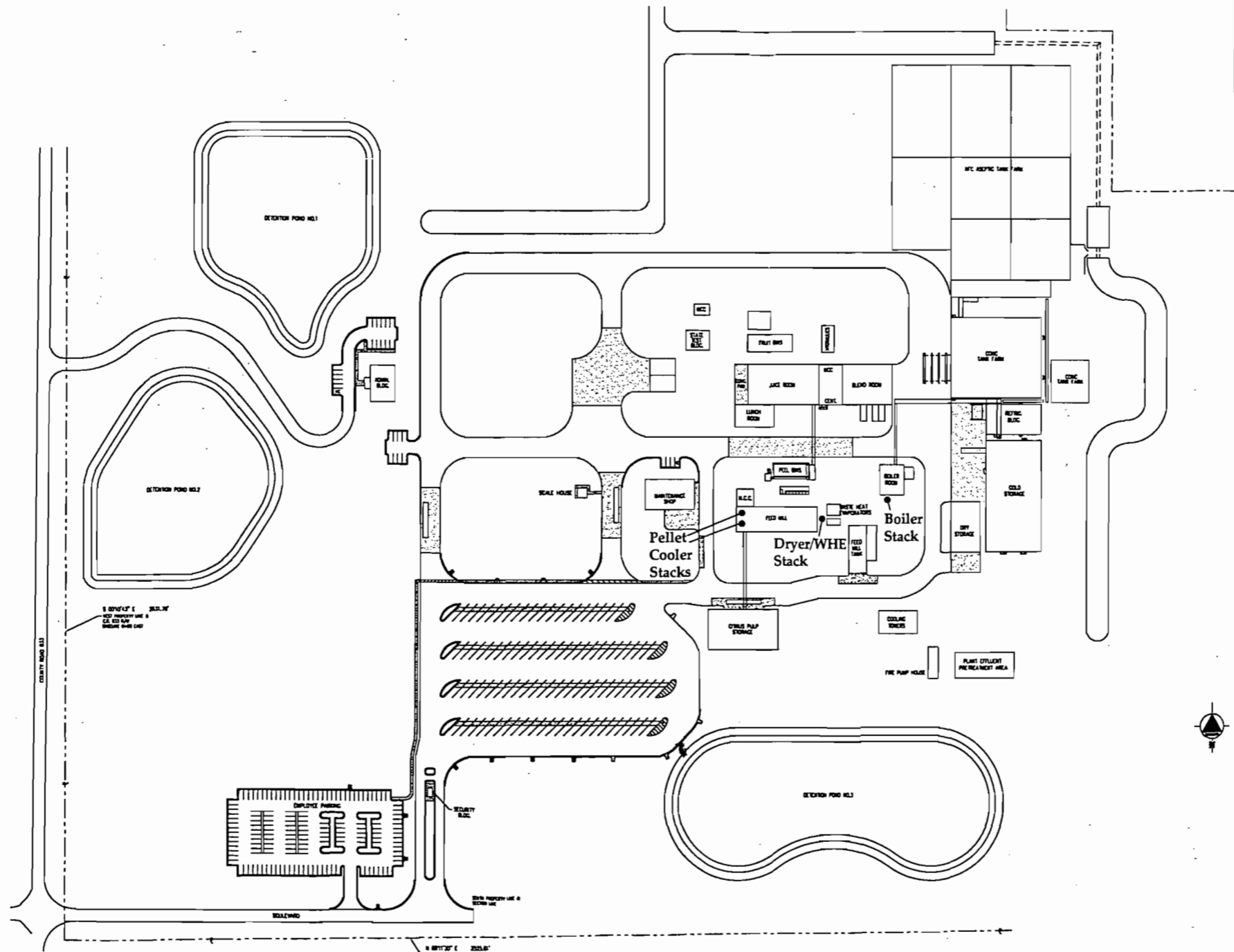
Source: Golder Associates Inc., 2000



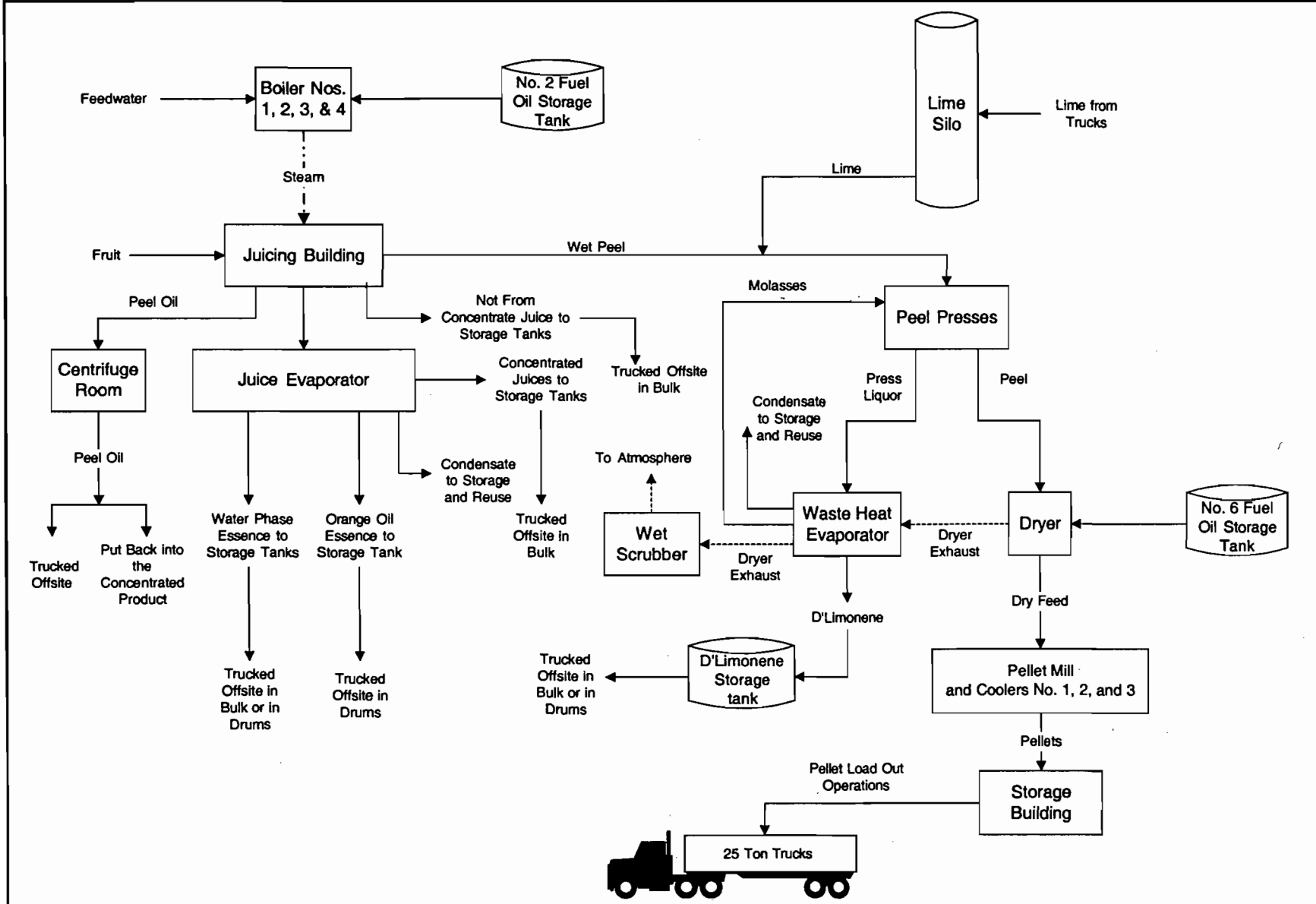
ATTACHMENT SG-FE-2
FACILITY PLOT PLAN

Legend

- Stack Location



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



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

Process Area: Overall Plant Process
 Filename: SG-FIGS.VSD
 Latest Revision Date: 8/31/00

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)			
[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
[] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
[] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
[] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Citrus Feed Mill			
4. Emissions Unit Identification Number:		[] No ID	
ID: 003		[] 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)			
4-Digit SIC code = 2037. The feed mill contains a 135,000 lb/hr waste heat evaporator and a 60,000 lb/hr feed dryer fired with low sulfur No. 6 fuel oil.			

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:</p> <p>Manufacturer: _____ Model Number: _____</p>
<p>2. Generator Nameplate Rating: _____ MW</p>
<p>3. Incinerator Information:</p> <p style="text-align: right;">Dwell Temperature: _____ °F</p> <p style="text-align: right;">Dwell Time: _____ seconds</p> <p style="text-align: right;">Incinerator Afterburner Temperature: _____ °F</p>

**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:	94,000 lb/hr (47 TPH)
4. Maximum Production Rate:	41,000 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>1. Max Prod. Rate represents citrus peel at 12% moisture.</p> <p>2. Process or throughput varies depending upon moisture content of peel relates to pounds of wet citrus peel and molasses at 74% moisture.</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	

**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? CFM		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): Actual volumetric flow rate based on most recent available stack test data.			

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: 0.552	5. Maximum Annual Rate: 3,316	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 1.5	8. Maximum % Ash:	9. Million Btu per SCC Unit: 152
10. Segment Comment (limit to 200 characters): 84.0 MMBtu/hr maximum firing low sulfur 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: 20.5	5. Maximum Annual Rate: 125,333	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Hourly and annual rates refer to dry citrus peel at 12% moisture, assuming pressed peel moisture content of 74%.		

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		NS
SO ₂			EL
NO _x			NS
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): Citrus feed mill hours of operation are limited to 6,000 hours/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:	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: 32.05 lb/hour		4. Synthetically Limited? [X]	
		96.15 tons/year	
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year			
6. Emission Factor: 100% of PM 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): Citrus feed mill hours of operation are limited to 6,000 hours/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: SO₂	2. Total Percent Efficiency of Control:
3. Potential Emissions: 42 lb/hour 126 tons/year	4. Synthetically Limited? <input checked="" type="checkbox"/>
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): Existing permit condition. Emissions related to No. 6 fuel oil combination.	

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: 27.7 lb/hour 61.5 tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 1.5 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): Citrus Feed Mill 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: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 1,522.3 lb/hour		4. Synthetically Limited? [<input checked="" type="checkbox"/>]	
		2,881.5 tons/year	
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year			
6. Emission Factor: 82.51 lb/ton BDP		7. Emissions Method Code:	
Reference: See Att. SG-EU1-G8		0	
8. Calculation of Emissions (limit to 600 characters): See Attachment SG-EU1-G8			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Citrus Feed Mill operating hours 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 1,800.9 tons/year	4. Synthetically Limited? [X]
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): Citrus Feed Mill operating hours 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.	

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): Existing permit condition requires measuring of total water flow to the scrubber nozzles. Parameter monitored 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: Kent Model Number: 50 Serial Number: See Comment	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): Existing permit condition requires monitoring of oil usage. No serial no. or installation date provided because meters are routinely replaced to insure optimum performance.	

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

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: <u>SG-EU1-J1</u> [] Not Applicable [] Waiver Requested
2. Fuel Analysis or Specification [X] Attached, Document ID: <u>SG-EU1-J2</u> [] Not Applicable [] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID: <u>SG-EU1-J3</u> [] 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>PSD Report</u> [] Not Applicable
9. Other Information Required by Rule or Statute [] Attached, Document ID: _____ [X] Not Applicable
10. Supplemental Requirements Comment: See Attachment SG-EU1-J10

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 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	--	96.2
Particulate (PM10)	100% of PM	2	--	32.05	--	96.2
Sulfur dioxide	0.5 lb/MMBtu	3	84.0 MMBtu/hr	42.0	504,000 MMBtu/hr	126.0
Nitrogen oxides	1.5 lb/ton BDP	4	18.5 tons/hr BDP	27.7	82,000 tons/yr BDP	61.5
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	70.28 lb/ton BDP	5	--	--	82,000 tons/yr BDP	2,881.5
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	43.93 lb/ton BDP	6	--	--	82,000 tons/yr BDP	1,800.9

Footnotes

^a Currently permitted heat input rate; throughput rate is maximum.

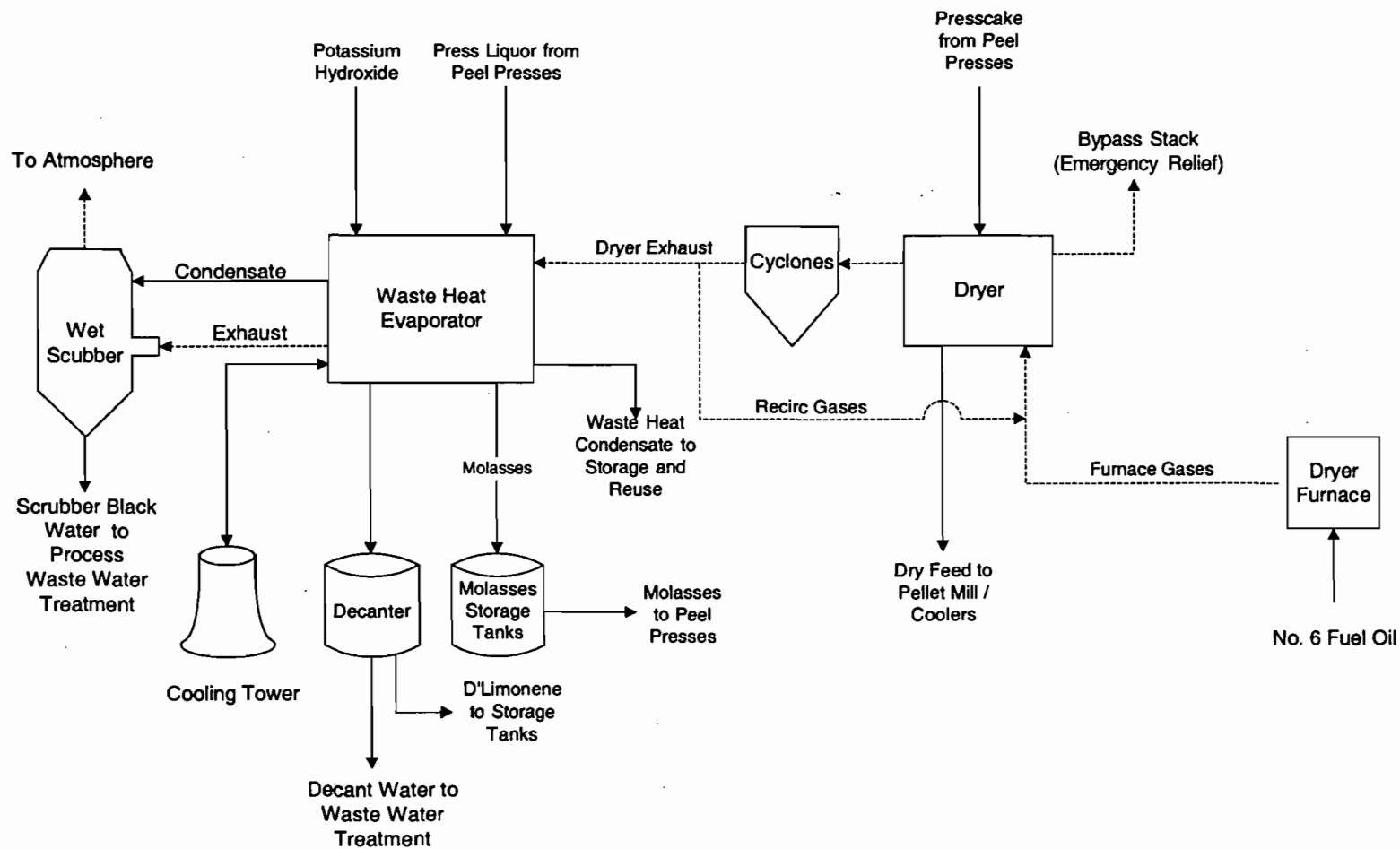
^b Based on 20 million boxes of fruit per year; 8.2 lb bone dry peel per box, and 6,000 hr/yr.

BDP = bone dry peel

References:

1. Maximum emission based on Process Weight Formula, $E = 17.31 * P^{0.16}$, where E is in lb/hr and P = 47 TPY throughput rate (62-296.320 (4)(a) F.A.C.).
2. Conservative assumption.
3. Currently 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 50% oil recovery (51.67% overall oil recovered/juice/sewered).
 - Valencia – 0.6076 lb oil/box and a 50% oil recovery (51.67% overall oil recovered/juice/sewered).
 - Annual Average - assumes a 50/50 mix of Valencia and Early/Mids.
 - Based on 90 lb fruit/box; 8.2 lb bone dry peel/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: Pellet Mill and Cooler
 Filename: SG-FIGS.VSD
 Latest Revision Date: 8/31/00

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
Citrus Feed Mill

Parameter	No. 6 Residual Fuel Oil
Density (lb/gal)	8.0
Heating Value (Btu/lb)	19,000
Heating Value (Btu/gal)	152,000
Nitrogen (%)	0.17
Sulfur (%)	1.5 Max
Ash/Inorganic (%)	<0.05

ATTACHMENT SG-EU1-J3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Attachment SG-EU1-J3

Southern Gardens Citrus Processing Corporation
Citrus Feed Mill Wet Collection Control Equipment Parameters

Citrus Feed Mill 52FTM26001503			
Outlet Gas Temp (F)		175	(a)
Outlet Gas Flow Rate (ACFM)		37,000	(a)
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	(b)
Pollutants			
	Inlet Loading lb/hr	Outlet Loading lb/hr	Control Efficiency (%)
Particulate Matter	641	32.05	95

Footnotes

(a) From recent stack test data.

(b) Back calculated from the proposed allowed limit and the equipment supplier efficiency rating.

ATTACHMENT SG-EU1-J10
SUPPLEMENTAL REQUIREMENTS COMMENT
AIR OPERATING PERMIT

AIR OPERATING PERMIT



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Wetherell
Secretary

PERMITTEE:
Southern Gardens Citrus
Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

I.D. No: 52FTM26001503
Permit/Certification
Number: A026-260247
Date of Issue: February 27, 1995
Expiration Date: February 27, 2000
County: Hendry
Latitude: 26° 44' 30" N
Longitude: 81° 07' 30" W
Section/Town/Range: 15/43S/32E
Project: Southern Gardens
Citrus Feed Mill

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operate a 60,000 pound per hour feed dryer with a 135,000 pound per hour waste heat evaporator. The unit is fired with low sulfur NO. 6 fuel oil, and the heat input is 84.0 MMBtu/hr.

The facility is located at 755 C.R. 833, about 1/2 mile south of S.R. 80.

Pertinent Documents

Dated

BACT	Feb. 4, 1992
Construction Permit AC26-206069	June 3, 1992
DEP Form 62-1.202(3) CoCoC	Oct. 11, 1994
Permit Modification AC26-260242	Feb. 17, 1995

For Title V Permits
SIC Number 2037
SCC Numbers 3-02-900-02

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001503
Permit/Cert. No.: AO26-260247
Date of Issue: February 27, 1995
Expiration Date: February 27, 2000

SPECIFIC CONDITIONS:

FACILITY OPERATIONS:

1. All fugitive dust generated at this site shall be adequately controlled. [Reference Rule 62-296.310(3), F.A.C.]
2. This facility shall be operated in such a fashion so as to preclude objectionable odors. [Reference Rule 62-296.320(2), F.A.C.]
3. The maximum numbers of hours of operation of this facility are limited to 6,000 per year, but the season is extended from October 1st to June 30th. [Reference Construction Permit Application dated October 24, 1994]

CONDITIONS OF COMPLIANCE:

4. Proper oil flow meters shall be installed to monitor the fuel oil being consumed. [Reference Rule 62-4.070(3), F.A.C.]
5. The scrubber control system shall be equipped with instrumentation to monitor total pressure drop and inlet water pressure. Such instrumentation shall be properly maintained so as to be functional at all times. [Reference Rule 62-4.070(3), F.A.C.]
6. Stack sampling facilities provided by the owner shall be in accordance with the requirements of Chapter 62-297.345, F.A.C.
7. Sulfur dioxide emissions shall not exceed 0.50 pounds per million BTU heat input. Compliance will be calculated from analyses of sulfur in the No. 6 fuel oil. Sulfur content in fuel shall not exceed 0.7%. [Reference Rule 62-296.330, F.A.C. & Construction Permit Application dated October 24, 1994]
8. The maximum allowable heat input is 84.0 million BTU's per hour. This is the heat input at which compliance with standards shall be demonstrated. [Reference Construction Permit Application dated October 24, 1994]
9. Visible emissions shall not exceed 20% opacity. [Reference Rule 62-296.310(2)(a), F.A.C.]
10. This facility shall comply with the Process Weight Table Emission Rates for units having a capacity greater than 30 tons per hour. The allowable emissions rate shall be calculated by the use of the formula $E = 17.31 * P^{0.16}$, where E is the emissions in pounds per hour and P is the process weight in tons per hour. [Reference Rule 62-296.310(1)(b), F.A.C.]

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001503
Permit/Cert. No.: AO26-260247
Date of Issue: February 27, 1995
Expiration Date: February 27, 2000

SPECIFIC CONDITIONS:

CONDITIONS OF COMPLIANCE:

11. Circumvention. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

REQUIRED TESTING:

12. Testing of emissions should be conducted with the source operating within 10% of its rated capacity. Testing may be conducted at less than 90% of rated capacity; however, if so, subsequent source operation is limited to up to 110% of the test load. Once the unit is so limited, then operation at higher capacities is allowed for purposes of additional compliance testing to regain rated capacity in the permit with prior notification to the Department's South District.

13. Notification of the Department prior to any required testing shall include as a minimum: the date and time of the test, the exact location of the test, and the name and telephone number of the contact person at the site. [Reference Rule 62-297.340(1)(i), F.A.C.]

14. Particulate emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Five as published in 40 CFR 60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year within 60 days prior to April 14th. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing. [Reference Rule 62-297.340(1), F.A.C.]

15. Sulfur dioxide emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Six as published in 40 CFR 60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year within 60 days prior to April 14th. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing. [Reference Rule 62-297.340(1), F.A.C.]

16. Visible emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001503
Permit/Cert. No.: AO26-260247
Date of Issue: February 27, 1995
Expiration Date: February 27, 2000

SPECIFIC CONDITIONS:

REQUIRED TESTING:

compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Nine as published in 40 CFR 60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year within 60 days prior to April 14th. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing. [Reference Rule 62-297.340(1), F.A.C.]

REPORTS AND RECORD KEEPING:

17. An annual operation report [DER Form 62-210.900(5)] shall be submitted by March 1st each year. [Rule 62-4.070(3), and Rule 62-210.370(2), F.A.C.]

GENERAL CONDITIONS:

18. An integral part of this permit is the attached 15 General Conditions. [Rule 62-4.160, F.A.C.]

Note: In the event of an emergency the permittee shall contact the Department by calling (904) 413-9911. During normal business hours, the permittee shall call (813) 332-6975.

Issued this 27th day of February, 1995.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Peter J. Ware
Director of
District Management

PJW/AEL/acl

7 Pages Attached

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001503
Permit/Cert. No.: A026-260247
Date of Issue: February 27, 1995
Expiration Date: February 27, 2000

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5) Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by any order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-30.300, F.A.C. as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (X) Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used;
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

AIR OPERATING PERMIT AMMENDMENTS



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT MODIFICATION

March 27, 1996

CERTIFIED MAIL #Z 391 361 416
RETURN RECEIPT REQUESTED

In the Matter of an
Application for Permit by:

Tristan Chapman
Vice President & General Manager
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

Hendry County - AP
DEP File No. AC26-206069
AC26-260242 and AO26-260247
ARMS Facility ID # 0510015

On February 2, 1996, Southern Gardens Citrus Processing Corporation applied to the Department to change the permit amendment issued on January 22, 1996. This change is due to additional data disclosing that two (2) of the parameters requiring data are insignificant and therefore not necessary for compliance.

Enclosed is Permit Number 0510015-002-AC issued to Southern Gardens Citrus Processing Corporation, pursuant to Section(s) 403.087, Florida Statutes, for the following modification to Permit Numbers AC26-260242 and AO26-260247

AC26-260242 Specific Condition No. 9
AO26-260247 Specific Condition No. 7

FROM: Sulfur dioxide emissions shall not exceed 0.50 pounds per million Btu heat input, or a total of 126 tons per year. Continuing compliance will be determined by monitoring the pH every six hours of operation of the press liquor into the waste heat evaporator, the molasses exit of the waste heat evaporator, and the black water. These values, with the annual EPA Method six data, will be used to determine operating parameters as surrogates to determine scrubbing efficiency. Sulfur content in the No. 6 fuel oil shall not exceed 1.5 per cent. [Reference Rule 62-296.330, F.A.C. & Construction Permit Application dated October 24, 1994]

Tristan Chapman
Vice President & General Manager
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

TO: Sulfur dioxide emissions shall not exceed 0.50 pounds per million Btu heat input, or a total of 126 tons per year. Continuing compliance will be determined by monitoring the pH every eight hours of operation of the waste heat evaporator black water. These values, with the annual EPA Method six data, will be used to determine operating parameters as surrogates to determine scrubbing efficiency. Sulfur content in the No. 6 fuel oil shall not exceed 1.5 per cent. [Reference Rule 62-296.330, F.A.C. & Construction Permit Application dated October 24, 1994]

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S..

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this

Tristan Chapman
Vice President & General Manager
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

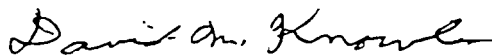
permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code (F.A.C.).

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-103.070, F.A.C.. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Fort Myers, Florida.

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL PROTECTION



David M. Knowles, P.E.
District Air
Program Administrator

Tristan Chapman
Vice President & General Manager
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT AMENDMENT ISSUANCE and all copies were mailed by certified mail before the close of business on March 27, 1996 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Louis Halpe 3-27-96
(Clerk) (Date)

DMK/AEL/jw

cc: David A. Buff, P.E.

AIR CONSTRUCTION PERMIT



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Wetherell
Secretary

PERMITTEE:
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

Facility ID.: 0510015
Permit Number: 0510015-005-AC
Date of Issue: July 8, 1997
Expiration Date: July 8, 2002
County: Hendry
Latitude: 26° 44' 30" N
Longitude: 81° 07' 30" W
Section/Town/Range: 15/43S/32E
Project: Pellet mill cooler

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For construction of a third pellet mill cooler and modification of permit of Boiler No. 3 to allow increased operation and modification of permits of Boilers No. 1 and No. 2 to allow increased flexibility in operating Boilers No. 1 and No. 2.

The facility is located at 755 C. R. 833, 0.5 mile south of S. R. 80, west of Clewiston, Hendry County, Florida.

Pertinent Documents

Dated

Boiler No. 1 AC26-206066	03-Jun-1992
Boiler No. 2 AC26-206068	03-Jun-1992
Feed Mill: Peel Dryer AC26-206069	03-Jun-1992
Pellet Mills/Coolers AC26-206072	03-Jun-1992
Tanks AC26-241731	24-Jan-1994
Boilers No. 1 & No. 2 AO26-260246	27-Feb-1995
Feed Mill AC26-260242	17-Feb-1995
Feed Mill AO26-260247	27-Feb-1995
Tanks Permit Amendment	02-Nov-1995

For Title V Permits
SIC Number 2037

PERMITTEE:
Southern Gardens Citrus Processing Corp.

Facility ID. No.: 0510015
Permit Number: 0510015-005-AC
Date of Issue: July 8, 1997
Expiration Date: July 8, 2002

SPECIFIC CONDITIONS:

FACILITY OPERATIONS:

1. The applicant, Southern Gardens Citrus Processing Corporation (SGCPC), shall retain a registered professional engineer for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. [Reference Rule 62-4.050(3), F.A.C.] Within 60 days of completion of construction, an amendment to the Title V Operation Permit Application shall be filed. [Reference Rule 62-4.220, F.A.C.]
2. The maximum number of hours of operation of the pellet mill are limited to 6,000 per year. The season is extended from October 1st to June 30th.
3. SGCPC shall not discharge air pollutants which cause or contribute to an objectionable odor. [Reference Rule 62-296.320(2), F.A.C.]
4. SGCPC shall take reasonable precautions to prevent emissions of unconfined particulate matter. [Reference Rule 62-296.320(4)(c), F.A.C.]

CONDITIONS OF COMPLIANCE:

5. Visible emissions from the pellet mill shall not exceed 20% opacity. [Reference Rule 62-296 F.A.C.]
6. Boilers 1, 2, and 3 are allowed simultaneous operation up to 8,760 hours/year. The total oil consumption by all three boilers will be limited to 4,078,000 gallons/year.
7. Specific Condition No. 5 of the operating permit (AO26-260247) for peel dryer/waste heat evaporator and Specific Condition 7 of the construction permit (AC26-260242) are modified to replace the requirement for total pressure drop with a requirement to measure total water flow to the nozzles.
8. This pellet mill shall comply with the Process Weight Table Emissions Rates. For units having a capacity less than 30 tons per hour the allowable emissions rate shall be calculated by the use of the formula $E = 3.59 * P^{0.62}$, where E is the emissions in pounds per hour and P is the process weight in tons per hour. For units having a capacity greater than 30 tons per hour the allowable emissions rate shall be calculated by the use of the formula $E = 17.31 * P^{0.16}$. [Reference Rule 62-296 F.A.C.]

PERMITTEE:
Southern Gardens Citrus Processing Corp.

Facility ID. No.: 0510015
Permit Number: 0510015-005-AC
Date of Issue: July 8, 1997
Expiration Date: July 8, 2002

SPECIFIC CONDITIONS:

REQUIRED TESTING:

9. Visible emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Tests shall be conducted in accordance with EPA Method Nine as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted within 30 days of initial startup. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.

REPORTS AND RECORD KEEPING:

10. An annual operation report (DER Form 62-210.900(5)) shall be submitted by March 1st each year. [Rule 62-4.070(3), and Rule 62-210.370(3), F.A.C.]

11. All other Specific Conditions of permits for this facility shall remain unchanged.

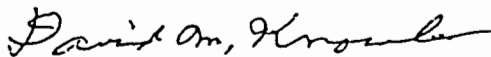
GENERAL CONDITIONS:

12. An integral part of this permit is the attached 15 General Conditions.
[Rule 62-4.160, F.A.C.]

NOTE: In the event of an emergency the permittee shall contact the Department by calling (850) 413-9911. During normal business hours, the permittee shall call (941) 332-6975.

Issued this 8th day of July, 1997.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



David M. Knowles, P.E.
District Air Program Administrator

DMK/JRS/jw

12 Pages Attached

PERMITTEE:
Southern Gardens Citrus Processing Corp.

Facility ID. No.: 0510015
Permit Number: 0510015-005-AC
Date of Issue: July 8, 1997
Expiration Date: July 8, 2002

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5) Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by any order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-30.300, F.A.C. as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used;
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901

Virginia B. Wetherell
Secretary

PERMITTEE:
Southern Gardens Citrus
Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

I.D. No: 52FTM26001503
Permit/Certification
Number: AC26-260242
Date of Issue: February 17, 1995
Expiration Date: February 17, 1996
County: Hendry
Latitude: 26° 44' 30" N
Longitude: 81° 07' 30" W
Section/Town/Range: 15/43S/32E
Project: Southern Gardens
Citrus Feed Mill

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Modify the original construction permit for a 60,000 pound per hour feed dryer to increase the waste heat evaporator to 135,000 pounds per hour. The hours of operation are increased to 6,000 and the heat input is increased to 84.0 MMBtu/hr.

The facility is located at 755 C.R. 833, about 1/2 mile south of S.R. 80.

Pertinent Documents

Dated

BACT
Construction Permit AC26-206069
DEP Form 62-1.202(3) CoCoC

Feb. 4, 1992
June 3, 1992
Oct. 11, 1994

For Title V Permits
SIC Number 2037
SCC Numbers 3-02-900-02

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001503
Permit/Cert. No.: AC26-260242
Date of Issue: February 17, 1995
Expiration Date: February 17, 1996

SPECIFIC CONDITIONS:

FACILITY OPERATIONS:

1. All fugitive dust generated at this site shall be adequately controlled. [Reference Rule 62-296.310(3), F.A.C.]
2. This facility shall be operated in such a fashion so as to preclude objectionable odors. [Reference Rule 62-296.320(2), F.A.C.]
3. The maximum numbers of hours of operation of this facility are limited to 6,000 per year, but the season is extended from October 1st to June 30th. [Reference Construction Permit Application dated October 24, 1994]

CONDITIONS OF COMPLIANCE:

4. The applicant shall retain a registered professional engineer for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. [Reference Rule 62-4.050(3), F.A.C.] An APPLICATION FOR AIR PERMIT - SHORT FORM (DEP Form 62-210.900(2) attached) shall be submitted as an application for an operation permit, with the compliance tests results. These are to be submitted within 60 days after completion of construction. [Reference Rule 62-4.220, F.A.C.]
5. The Department shall be notified and prior approval shall be obtained of any changes or revisions made during construction.
6. Proper oil flow meters shall be installed to monitor the fuel oil being consumed. [Reference Rule 62-4.070(3), F.A.C.]
7. The scrubber control system shall be equipped with instrumentation to monitor total pressure drop and inlet water pressure. Such instrumentation shall be properly maintained so as to be functional at all times. [Reference Rule 62-4.070(3), F.A.C.]
8. Stack sampling facilities provided by the owner shall be in accordance with the requirements of Chapter 62-297.345, F.A.C.
9. Sulfur dioxide emissions shall not exceed 0.50 pounds per million BTU heat input. Compliance will be calculated from analyses of sulfur in the No. 6 fuel oil. Sulfur content in fuel shall not exceed 0.7%. [Reference Rule 62-296.330, F.A.C. & Construction Permit Application dated October 24, 1994]
10. The maximum allowable heat input is 84.0 million BTU's per hour. This is the heat input at which compliance with standards shall be demonstrated. [Reference Construction Permit Application dated October 24, 1994]

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001503
Permit/Cert. No.: AC26-260242
Date of Issue: February 17, 1995
Expiration Date: February 17, 1996

SPECIFIC CONDITIONS:

CONDITIONS OF COMPLIANCE:

11. Visible emissions shall not exceed 20% opacity. [Reference Rule 62-296.310(2)(a), F.A.C.]

12. This facility shall comply with the Process Weight Table Emission Rates for units having a capacity greater than 30 tons per hour. The allowable emissions rate shall be calculated by the use of the formula $E = 17.31 * P^{0.16}$, where E is the emissions in pounds per hour and P is the process weight in tons per hour. [Reference Rule 62-296.310(1)(b), F.A.C.]

13. Circumvention. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

REQUIRED TESTING:

14. Testing of emissions should be conducted with the source operating within 10% of its rated capacity. Testing may be conducted at less than 90% of rated capacity; however, if so, subsequent source operation is limited to up to 110% of the test load. Once the unit is so limited, then operation at higher capacities is allowed for purposes of additional compliance testing to regain rated capacity in the permit with prior notification to the Department's South District.

15. Notification of the Department prior to any required testing shall include as a minimum: the date and time of the test, the exact location of the test, and the name and telephone number of the contact person at the site. [Reference Rule 62-297.340(1)(i), F.A.C.]

16. Particulate emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Five as published in 40 CFR 60, Appendix A, or State approved equivalent method. Such tests shall be conducted within 30 days of the initial startup. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing. [Reference Rule 62-297.340(1), F.A.C.]

17. Sulfur dioxide emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Six as published in 40 CFR

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001503
Permit/Cert. No.: AC26-260242
Date of Issue: February 17, 1995
Expiration Date: February 17, 1996

SPECIFIC CONDITIONS:

REQUIRED TESTING:

60, Appendix A, or State approved equivalent method. Such tests shall be conducted within 30 days of the initial startup. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing. [Reference Rule 62-297.340(1), F.A.C.]

18. Visible emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Nine as published in 40 CFR 60, Appendix A, or State approved equivalent method. Such tests shall be conducted within 30 days of the initial startup. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing. [Reference Rule 62-297.340(1), F.A.C.]

REPORTS AND RECORD KEEPING:

19. An annual operation report [DER Form 62-210.900(5)] shall be submitted by March 1st each year. [Rule 62-4.070(3), and Rule 62-210.370(2), F.A.C.]


GENERAL CONDITIONS:

20. An integral part of this permit is the attached 15 General Conditions. [Rule 62-4.160, F.A.C.]

Note: In the event of an emergency the permittee shall contact the Department by calling (904) 413-9911. During normal business hours, the permittee shall call (813) 332-6975.

Issued this 17th day of February, 1995.

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL PROTECTION



Peter J. Ware
Director of
District Management

PJW/AEL/jw

7 Pages Attached

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001503
Permit/Cert. No.: AC26-260242
Date of Issue: February 17, 1995
Expiration Date: February 17, 1996

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5) Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by any order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-30.300, F.A.C. as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (X) Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used;
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

AIR OPERATING PERMIT AMENDMENTS



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT MODIFICATION

March 27, 1996

CERTIFIED MAIL #Z 391 361 416
RETURN RECEIPT REQUESTED

In the Matter of an
Application for Permit by:

Tristan Chapman
Vice President & General Manager
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

Hendry County - AP
DEP File No. AC26-206069
AC26-260242 and AO26-260247
ARMS Facility ID # 0510015

On February 2, 1996, Southern Gardens Citrus Processing Corporation applied to the Department to change the permit amendment issued on January 22, 1996. This change is due to additional data disclosing that two (2) of the parameters requiring data are insignificant and therefore not necessary for compliance.

Enclosed is Permit Number 0510015-002-AC issued to Southern Gardens Citrus Processing Corporation, pursuant to Section(s) 403.087, Florida Statutes, for the following modification to Permit Numbers AC26-260242 and AO26-260247

AC26-260242 Specific Condition No. 9
AO26-260247 Specific Condition No. 7

FROM: Sulfur dioxide emissions shall not exceed 0.50 pounds per million Btu heat input, or a total of 126 tons per year. Continuing compliance will be determined by monitoring the pH every six hours of operation of the press liquor into the waste heat evaporator, the molasses exit of the waste heat evaporator, and the black water. These values, with the annual EPA Method six data, will be used to determine operating parameters as surrogates to determine scrubbing efficiency. Sulfur content in the No. 6 fuel oil shall not exceed 1.5 per cent. [Reference Rule 62-296.330, F.A.C. & Construction Permit Application dated October 24, 1994]

Tristan Chapman
Vice President & General Manager
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

FO: Sulfur dioxide emissions shall not exceed 0.50 pounds per million Btu heat input, or a total of 126 tons per year. Continuing compliance will be determined by monitoring the pH every eight hours of operation of the waste heat evaporator black water. These values, with the annual EPA Method six data, will be used to determine operating parameters as surrogates to determine scrubbing efficiency. Sulfur content in the No. 6 fuel oil shall not exceed 1.5 per cent. [Reference Rule 62-296.330, F.A.C. & Construction Permit Application dated October 24, 1994]

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S..

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this

Tristan Chapman
Vice President & General Manager
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

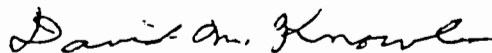
permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code (F.A.C.).

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the timespecified for filing a petition and conforms to Rule 62-103.070, F.A.C.. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Fort Myers, Florida.

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL PROTECTION



David M. Knowles, P.E.
District Air
Program Administrator

Tristan Chapman
Vice President & General Manager
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT AMENDMENT ISSUANCE and all copies were mailed by certified mail before the close of business on March 27, 1996 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Louise Halpe 3-27-96
(Clerk) (Date)

DMK/AEL/jw

cc: David A. Buff, P.E.

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

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><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).</p> <p><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.</p> <p><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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Citrus Pellet Coolers</p>			
<p>4. Emissions Unit Identification Number: <input type="checkbox"/> No ID</p> <p>ID: 004, 005, 009 <input type="checkbox"/> ID Unknown</p>			
<p>5. Emissions Unit Status Code: A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code: 20</p>	<p>8. Acid Rain Unit? <input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters) 4-Digit SIC code = 2037. This emissions unit consists of two pellet mills and three coolers. Either Coolers #1 and #2 can operate together, or Cooler #3 can operate alone. Cooler #1 ID = 004; Cooler #2 ID = 005; Cooler #3 ID = 009.</p>			

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.

Baghouse for dust control on the storage building. Currently FDEP does not require the baghouse to be used.

2. Control Device or Method Code(s): **18**

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):		
	Maximum rates relate to total pounds of citrus peel through Coolers #1 and #2, or through Cooler #3.	

**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 Emission Standards	
62-297.310(2), F.A.C. General Compliance Test Requirements	
62-297.310(4)(a), F.A.C. General Compliance Test Requirements	
62-297.310(5), F.A.C. General Compliance Test Requirements	
62-297.310(7)(a)1., F.A.C. General Compliance Test Requirements	
62-297.310(7)(a)3., F.A.C. General Compliance Test Requirements	
62-297.310(7)(a)4.a., F.A.C. General Compliance Test Requirements	
62-297.310(7)(a)9., F.A.C. General Compliance Test Requirements	
62-297.310(8), F.A.C. General Compliance Test Requirements	
62-297.401(9), F.A.C. EPA Method Nine	

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? CPM		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Coolers #1 and #3 vent to Cyclone #1; Cooler #2 vents to Cyclone #2.			
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): Stack parameters apply to Cyclone #1. Stack parameters for Cyclone #2 are as follows: height = 30 ft; diameter = 2.0 ft; temp. = 110°F; flow = 9,800 acfm.			

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 coolers.		

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			EL
PM ₁₀			NS
VOC			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: 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): Citrus pellet mill hours of operation are limited to 6,000 hrs/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: PM₁₀	2. Total Percent Efficiency of Control:
3. Potential Emissions: 5.0 lb/hour	4. Synthetically Limited? [<input checked="" type="checkbox"/>] 15.0 tons/year
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 100% of PM 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): Citrus Pellet mill hours of operation are limited to 6,000 hours/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: 119.3 lb/hour 225.1 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: VE20	2. Basis for Allowable Opacity: [X] Rule [] 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.	

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>PSD-Report</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: See Attachment SG-EU2-J10

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 Citrus Pellet Mill 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)	5.00 lb/hr	1	--	5.0	6,000 hr/yr	15.0
Particulate (PM10)	100% % of PM	2	--	5.0	--	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	5.49 lb/ton BDP	3	--	--	82,000 TPY BDP	225.1

Footnotes

^a Based on maximum throughput rate.

^b Based on 20 million boxes of fruit per year, 8.2 lb bone dry peel per box, and 6,000 hr/yr.

References:

1. Maximum emissions based on stack test data.

2. Conservative assumption.

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

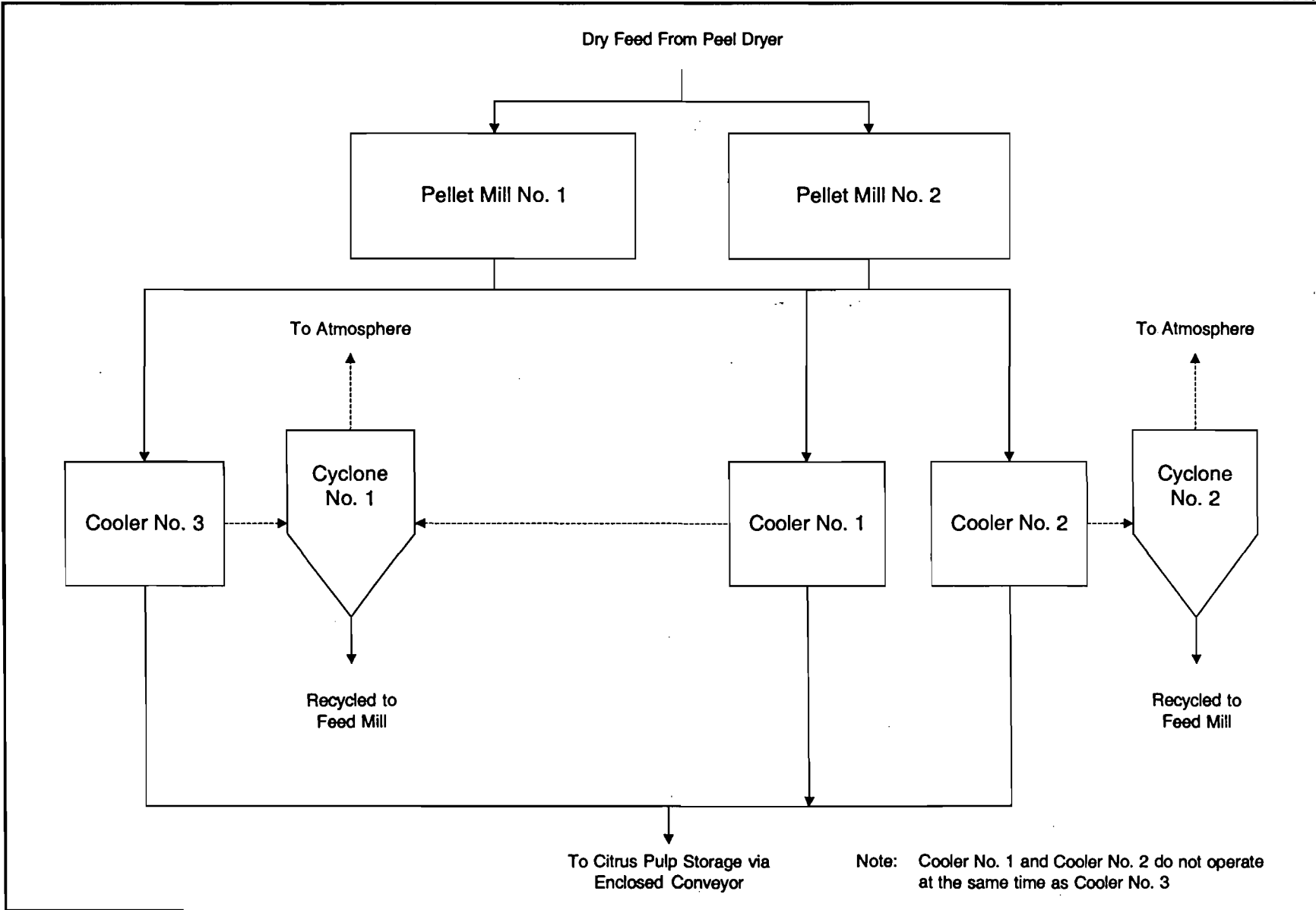
 Early/Mids -- 0.4275 lb oil/box and a 50% oil recovery (51.67% overall oil recovered/juice/sewered).

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

 Annual Average -- assumes a 50/50 mix of Valencia and Early/Mids.

 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: Citrus Pellet Mill
Filename: SG-FIGS.VSD
Latest Revision Date: 7/28/00

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



ATTACHMENT SG-EU2-J10
SUPPLEMENTAL REQUIREMENTS COMMENT
AIR OPERATING PERMIT

AIR OPERATING PERMIT



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Wetherell
Secretary

PERMITTEE:
Southern Gardens Citrus
Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

I.D. No: 52FTM26001504
Permit/Certification
Number: A026-260249
Date of Issue: February 27, 1995
Expiration Date: February 27, 2000
County: Hendry
Latitude: 26° 44' 30" N
Longitude: 81° 07' 30" W
Section/Town/Range: 15/43S/32E
Project: Southern Gardens
Citrus Pellet Mill

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To operate a citrus pellet mill and cooler. This is one of two units, the second has not been completed.

The facility is located at 755 C.R. 833, about 1/2 mile south of S.R. 80.

Pertinent Documents

Dated

Construction Permit AC26-206072
DEP Form 62-1.202(3) CoCoC
Permit Modification AC26-260243

June 3, 1992
Oct. 11, 1994
Feb. 17, 1995

For Title V Permits

SIC Number 2037
SCC Numbers 3-02-008-16

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001504
Permit/Cert. No.: A026-260249
Date of Issue: February 27, 1995
Expiration Date: February 27, 2000

SPECIFIC CONDITIONS:

FACILITY OPERATIONS:

1. All fugitive dust generated at this site shall be adequately controlled. [Reference Rule 62-296.310(3), F.A.C.]
2. This facility shall be operated in such a fashion so as to preclude objectionable odors. [Reference Rule 62-296.320(2), F.A.C.]
3. The maximum numbers of hours of operation of this facility are limited to 6,000 per year, but the season is extended from October 1st to June 30th. [Reference Construction Permit Application dated October 24, 1994]

CONDITIONS OF COMPLIANCE:

4. Visible emissions shall not exceed 20% opacity. [Reference Rule 62-296.310(2)(a), F.A.C.]
5. This facility shall comply with the Process Weight Table Emission Rates for units having a capacity less than 30 tons per hour. The allowable emissions rate shall be calculated by the use of the formula $E = 3.59 * P^{0.62}$, where E is the emissions in pounds per hour and P is the process weight in tons per hour. [Reference Rule 62-296.310(1)(b), F.A.C.]

REQUIRED TESTING:

6. Visible emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Nine as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year within 60 days prior to April 14th. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing. [Reference Rule 62-297.340(1), F.A.C.]

REPORTS AND RECORD KEEPING:

7. An annual operation report (DER Form 62-210.900(5)) shall be submitted by March 1st each year. [Rule 62-4.070(3), and Rule 62-210.370(2), F.A.C.]

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001504
Permit/Cert. No.: A026-260249
Date of Issue: February 27, 1995
Expiration Date: February 27, 2000

SPECIFIC CONDITIONS:

GENERAL CONDITIONS:

8. An integral part of this permit is the attached 15 General Conditions. [Rule 62-4.160, F.A.C.]

Note: In the event of an emergency the permittee shall contact the Department by calling (904) 413-9911. During normal business hours, the permittee shall call (813) 332-6975.

Issued this 27th day of February, 1995.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Peter J. Ware
Director of
District Management

PJW/AEL/acl

 6 Pages Attached

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001504
Permit/Cert. No.: AO26-260249
Date of Issue: February 27, 1995
Expiration Date: February 27, 2000

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5) Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by any order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-30.300, F.A.C. as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used;
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

AIR CONSTRUCTION PERMIT



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Wetherell
Secretary

PERMITTEE:
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

Facility ID.: 0510015
Permit Number: 0510015-005-AC
Date of Issue: July 8, 1997
Expiration Date: July 8, 2002
County: Hendry
Latitude: 26° 44' 30" N
Longitude: 81° 07' 30" W
Section/Town/Range: 15/43S/32E
Project: Pellet mill cooler

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For construction of a third pellet mill cooler and modification of permit of Boiler No. 3 to allow increased operation and modification of permits of Boilers No. 1 and No. 2 to allow increased flexibility in operating Boilers No. 1 and No. 2.

The facility is located at 755 C. R. 833, 0.5 mile south of S. R. 80, west of Clewiston, Hendry County, Florida.

Pertinent Documents

Dated

Boiler No. 1 AC26-206066	03-Jun-1992
Boiler No. 2 AC26-206068	03-Jun-1992
Feed Mill: Peel Dryer AC26-206069	03-Jun-1992
Pellet Mills/Coolers AC26-206072	03-Jun-1992
Tanks AC26-241731	24-Jan-1994
Boilers No. 1 & No. 2 AO26-260246	27-Feb-1995
Feed Mill AC26-260242	17-Feb-1995
Feed Mill AO26-260247	27-Feb-1995
Tanks Permit Amendment	02-Nov-1995

For Title V Permits
SIC Number 2037

PERMITTEE:
Southern Gardens Citrus Processing Corp.

Facility ID. No.: 0510015
Permit Number: 0510015-005-AC
Date of Issue: July 8, 1997
Expiration Date: July 8, 2002

SPECIFIC CONDITIONS:

FACILITY OPERATIONS:

1. The applicant, Southern Gardens Citrus Processing Corporation (SGCPC), shall retain a registered professional engineer for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. [Reference Rule 62-4.050(3), F.A.C.] Within 60 days of completion of construction, an amendment to the Title V Operation Permit Application shall be filed. [Reference Rule 62-4.220, F.A.C.]
2. The maximum number of hours of operation of the pellet mill are limited to 6,000 per year. The season is extended from October 1st to June 30th.
3. SGCPC shall not discharge air pollutants which cause or contribute to an objectionable odor. [Reference Rule 62-296.320(2), F.A.C.].
4. SGCPC shall take reasonable precautions to prevent emissions of unconfined particulate matter. [Reference Rule 62-296.320(4)(c), F.A.C.].

CONDITIONS OF COMPLIANCE:

5. Visible emissions from the pellet mill shall not exceed 20% opacity. [Reference Rule 62-296 F.A.C.]
6. Boilers 1, 2, and 3 are allowed simultaneous operation up to 8,760 hours/year. The total oil consumption by all three boilers will be limited to 4,078,000 gallons/year.
7. Specific Condition No. 5 of the operating permit (AO26-260247) for peel dryer/waste heat evaporator and Specific Condition 7 of the construction permit (AC26-260242) are modified to replace the requirement for total pressure drop with a requirement to measure total water flow to the nozzles.
8. This pellet mill shall comply with the Process Weight Table Emissions Rates. For units having a capacity less than 30 tons per hour the allowable emissions rate shall be calculated by the use of the formula $E = 3.59 * P^{0.62}$, where E is the emissions in pounds per hour and P is the process weight in tons per hour. For units having a capacity greater than 30 tons per hour the allowable emissions rate shall be calculated by the use of the formula $E = 17.31 * P^{0.16}$. [Reference Rule 62-296 F.A.C.]

PERMITTEE:
Southern Gardens Citrus Processing Corp.

Facility ID. No.: 0510015
Permit Number: 0510015-005-AC
Date of Issue: July 8, 1997
Expiration Date: July 8, 2002

SPECIFIC CONDITIONS:

REQUIRED TESTING:

9. Visible emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Tests shall be conducted in accordance with EPA Method Nine as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted within 30 days of initial startup. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.

REPORTS AND RECORD KEEPING:

10. An annual operation report (DER Form 62-210.900(5)) shall be submitted by March 1st each year. [Rule 62-4.070(3), and Rule 62-210.370(3), F.A.C.]

11. All other Specific Conditions of permits for this facility shall remain unchanged.

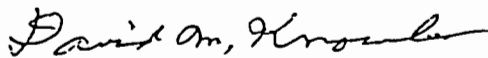
GENERAL CONDITIONS:

12. An integral part of this permit is the attached 15 General Conditions.
[Rule 62-4.160, F.A.C.]

NOTE: In the event of an emergency the permittee shall contact the Department by calling (850) 413-9911. During normal business hours, the permittee shall call (941) 332-6975.

Issued this 8th day of July, 1997.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



David M. Knowles, P.E.
District Air Program Administrator

DMK/JRS/jw

12 Pages Attached

PERMITTEE:
Southern Gardens Citrus Processing Corp.

Facility ID. No.: 0510015
Permit Number: 0510015-005-AC
Date of Issue: July 8, 1997
Expiration Date: July 8, 2002

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5) Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by any order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-30.300, F.A.C. as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used;
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Wetherell
Secretary

PERMITTEE:
Southern Gardens Citrus
Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

I.D. No: 52FTM26001504
Permit/Certification
Number: A026-260249
Date of Issue: February 27, 1995
Expiration Date: February 27, 2000
County: Hendry
Latitude: 26° 44' 30" N
Longitude: 81° 07' 30" W
Section/Town/Range: 15/43S/32E
Project: Southern Gardens
Citrus Pellet Mill

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To operate a citrus pellet mill and cooler. This is one of two units, the second has not been completed.

The facility is located at 755 C.R. 833, about 1/2 mile south of S.R. 80.

Pertinent Documents

Dated

Construction Permit AC26-206072	June 3, 1992
DEP Form 62-1.202(3) CoCoC	Oct. 11, 1994
Permit Modification AC26-260243	Feb. 17, 1995

For Title V Permits

SIC Number 2037
SCC Numbers 3-02-008-16

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001504
Permit/Cert. No.: AC26-260243
Date of Issue: February 17, 1995
Expiration Date: June 3, 1997

SPECIFIC CONDITIONS:

FACILITY OPERATIONS:

1. All fugitive dust generated at this site shall be adequately controlled. [Reference Rule 62-296.310(3), F.A.C.]
2. This facility shall be operated in such a fashion so as to preclude objectionable odors. [Reference Rule 62-296.320(2), F.A.C.]
3. The maximum numbers of hours of operation of this facility are limited to 6,000 per year, but the season is extended from October 1st to June 30th. [Reference Construction Permit Application dated October 24, 1994]

CONDITIONS OF COMPLIANCE:

4. The Department shall be notified and prior approval shall be obtained of any changes or revisions made during construction.
5. The applicant shall retain a registered professional engineer for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. [Reference Rule 62-4.050(3), F.A.C.] An APPLICATION FOR AIR PERMIT - SHORT FORM (DEP Form 62-210.900(2) attached) shall be submitted as an application for an operation permit, along with the compliance tests results. These are to be submitted within 60 days after completion of construction. [Reference Rule 62-4.220, F.A.C.]
6. Visible emissions shall not exceed 20% opacity. [Reference Rule 62-296.310(2)(a), F.A.C.]
7. This facility shall comply with the Process Weight Table Emission Rates for units having a capacity less than 30 tons per hour. The allowable emissions rate shall be calculated by the use of the formula $E = 3.59 * P^{0.62}$, where E is the emissions in pounds per hour and P is the process weight in tons per hour. [Reference Rule 62-296.310(1)(b), F.A.C.]

REQUIRED TESTING:

8. Visible emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Nine as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted within 30 days of the initial startup.

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001504
Permit/Cert. No.: AC26-260243
Date of Issue: February 17, 1995
Expiration Date: June 3, 1997

SPECIFIC CONDITIONS:

REQUIRED TESTING:

Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing. [Reference Rule 62-297.340(1), F.A.C.]

REPORTS AND RECORD KEEPING:

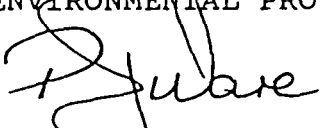
9. An annual operation report (DER Form 62-210.900(5)) shall be submitted by March 1st each year. [Rule 62-4.070(3), and Rule 62-210.370(2), F.A.C.]

GENERAL CONDITIONS:

10. An integral part of this permit is the attached 15 General Conditions. [Rule 62-4.160, F.A.C.]

Note: In the event of an emergency the permittee shall contact the Department by calling (904) 413-9911. During normal business hours, the permittee shall call (813) 332-6975.

Issued this 17th day of February, 1995.
STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL PROTECTION



Peter J. Ware
Director of
District Management

PJW/AEL/jw

7 Pages Attached

PERMITTEE:
Southern Gardens Citrus
Processing Corp.

I.D. No.: 52FTM26001504
Permit/Cert. No.: AC26-260243
Date of Issue: February 17, 1995
Expiration Date: June 3, 1997

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5) Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by any order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-30.300, F.A.C. as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used;
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

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 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 checked="" 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 type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input checked="" 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): Seven Storage Tanks for Volatile Organic Compounds (VOC)			
4. Emissions Unit Identification Number: ID: 006		<input type="checkbox"/> No ID <input type="checkbox"/> ID Unknown	
5. Emissions Unit Status Code: A	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) Four vertical fixed roof fuel oil storage tanks (30,000 gallons each), two for No. 2 distillate fuel oil and two for No. 6 residual fuel oil; and three vertical fixed roof D-Limonene storage tanks (24,000 gallons each).			

Emissions Unit Control Equipment

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

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:	12,178,863 gal/yr	
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		
Throughput rates are as follows: 4,078,000 gal/yr for No. 2 fuel oil; 7,100,863 gal/yr for No. 6 fuel oil; 1,000,000 gal/yr for D-Limonene.		

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

List of Applicable Regulations

40 CFR 60.116b(a)	
40 CFR 60.116b(b)	
62-204.800(7)(b)14, F.A.C., Federal Regulations Adopted by Reference: 40 CFR 60, Subpart Kb	
62-296.320(1)(a), F.A.C., General Pollutant Emissions Limiting Standards	

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? VOC ST		2. Emission Point Type Code: 4	
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: F	6. Stack Height: feet	7. Exit Diameter: feet	
8. Exit Temperature: 77 °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: 29 feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters): Nonstack emission point height is an average of the tank farm shell heights.			

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

Segment Description and Rate: Segment 1 of 6

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Petroleum Product Storage – Fixed Roof Tanks (varying sizes), Distillate Fuel No. 2: Working Loss (Tank Diameter Independent) Fixed Roof.		
2. Source Classification Code (SCC): 4-03-010-21		3. SCC Units: Thousand Gallons Throughput
4. Maximum Hourly Rate: 0	5. Maximum Annual Rate: 4,078	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Segment description relates to No. 2 distillate fuel oil working losses. Max annual rate refers to max No. 2 distillate fuel oil throughput.		

Segment Description and Rate: Segment 2 of 6

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Petroleum Product Storage – Fixed Roof Tanks (67,000 BBL, Tank Size) Distillate Fuel No. 2: Breathing Loss		
2. Source Classification Code (SCC): 4-03-010-19		3. SCC Units: Thousand Gallons Storage
4. Maximum Hourly Rate: 0	5. Maximum Annual Rate: 0	6. Estimated Annual Activity Factor: 60
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Segment description relates to No. 2 distillate fuel oil breathing losses. Activity factor refers to No. 2 distillate fuel oil storage tank capacity (2 tanks at 30,000 gallons each).		

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

Segment Description and Rate: Segment 3 of 6

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Petroleum Product Storage – Fixed Roof Tanks: Independent Tank Diameter: Working Loss: Fuel oil Grade 6		
2. Source Classification Code (SCC): 4-03-010-99	3. SCC Units: Thousand Gallons Throughput	
4. Maximum Hourly Rate: 0	5. Maximum Annual Rate: 7,101	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 	8. Maximum % Ash: 	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Segment description relates to No. 6 residual fuel oil working losses. Max annual rate refers to max No. 6 residual fuel oil throughput.		

Segment Description and Rate: Segment 4 of 6

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Petroleum Product Storage – Fixed Roof Tanks (67,000 BBL) – Breathing Loss – Fuel oil Grade 6		
2. Source Classification Code (SCC): 4-03-010-97	3. SCC Units: Thousand Gallons Storage	
4. Maximum Hourly Rate: 0	5. Maximum Annual Rate: 0	6. Estimated Annual Activity Factor: 60
9. Maximum % Sulfur: 	10. Maximum % Ash: 	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Segment description relates to No. 6 residual fuel oil breathing losses. Activity factor refers to max No. 6 storage capacity (2 tanks at 30,000 gallons each).		

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

Segment Description and Rate: Segment 5 of 6

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Organic chemical storage, fixed roof Tanks, Esters Specify Ester: Working Loss		
2. Source Classification Code (SCC): 4-07-044-99		3. SCC Units: Thousand Gallons Throughput
4. Maximum Hourly Rate: 0	5. Maximum Annual Rate: 1,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Segment description relates to D-Limonene working losses. Maximum annual rate refers to the sum total combined annual throughput rate for the three D-Limonene tanks.		

Segment Description and Rate: Segment 6 of 6

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Organic chemical storage, Fixed Roof Tanks, Esters, Specify Ester: Breathing Loss		
2. Source Classification Code (SCC): 4-07-044-97		3. SCC Units: Thousand Gallons Storage
4. Maximum Hourly Rate: 0	5. Maximum Annual Rate: 0	6. Estimated Annual Activity Factor: 72
11. Maximum % Sulfur:	12. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Segment description relates to D-Limonene breathing losses. Activity factor refers to D-Limonene storage tank capacity (3 tanks at 24,000 gallons each).		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			NS

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: lb/hour		4. Synthetically Limited? [X]	
[X] 1		[] 2	
[] 3		_____ to _____ tons/year	
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

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 _____ 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 _____ 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)**

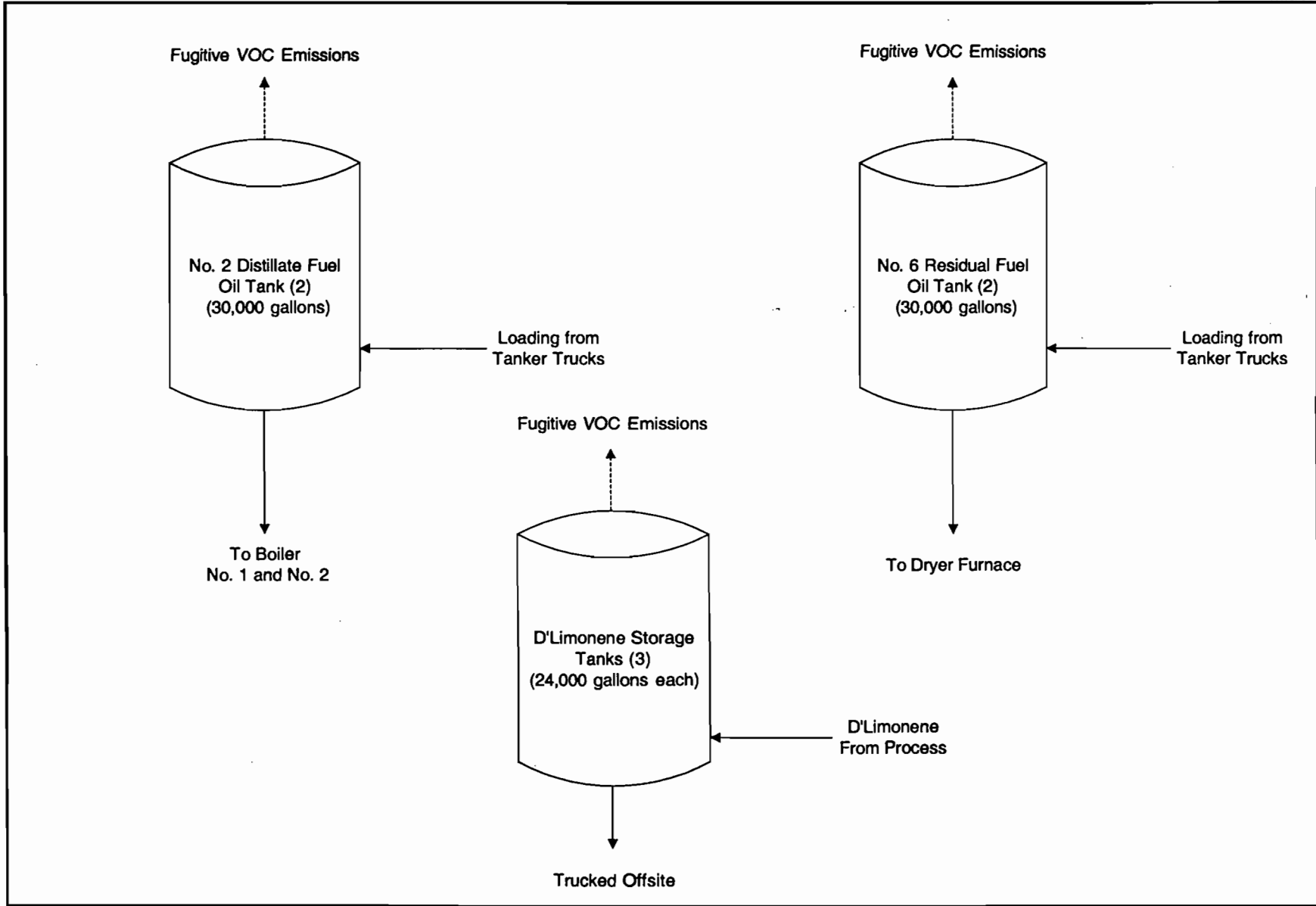
Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: <u>SG-EU3-J1</u> [] 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>PSD-Report</u> [] Not Applicable
9. Other Information Required by Rule or Statute [] Attached, Document ID: _____ [X] Not Applicable
10. Supplemental Requirements Comment: See Attachment SG-EU3-J10

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-EU3-J1
PROCESS FLOW DIAGRAM**



Attachment SG-EU3-J1
 Southern Gardens Citrus Processing Corporation
 Process Flow Diagram
 Clewiston, Florida

Process Area: VOC Storage Tanks
 Filename: SG-FIGS.VSD
 Latest Revision Date: 7/28/00

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



**ATTACHMENT SG-EU3-J10
SUPPLEMENTAL REQUIREMENTS COMMENT
AIR OPERATING PERMIT**



Department of Environmental Protection

Don Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT ISSUANCE

January 30, 1995

CERTIFIED MAIL #Z 054 062 491
RETURN RECEIPT REQUESTED

In the Matter of an
Application for Permit by:

Stuart Salter, Vice President
Southern Gardens Citrus
Processing Corporation
Post Office Box 130
Leewiston, Florida 33440

DEP File No. A026-260253
Hendry County - AP

Enclosed is Permit Number A026-260253 to operate four (4) storage tanks for volatile organic compounds (VOC) issued pursuant to Section(s) 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 4 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S..

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

BEST AVAILABLE COPY

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

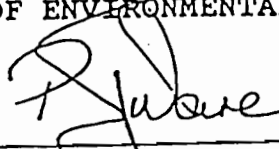
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code (F.A.C.).

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-103.070, F.A.C.. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 20.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Fort Myers, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Peter J. Ware
Director of
District Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on January 31, 1995 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Laurie Hagg 1-31-95
(Clerk) (Date)

PJW/AEL/jw

Enclosures

Copies furnished to:

David A. Buff P.E.



Department of Environmental Protection

Winton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901

Virginia B. Wetherell
Secretary

PERMITTEE:

Southern Gardens Citrus
Processing Corporation
P.O. Box 130
Clewiston, FL 33440

I.D. No. 52FTM260015/06
Permit/Certification
Number: AO26-260253
Date of Issue: Jan. 30, 1995
Expiration Date: Jan. 30, 2000
County: Hendry
Latitude: 26° 44' 30" N
Longitude: 81° 07' 30" W
Section/Town/Range: 15/43S/32E
Project: Four Volatile Organic
Liquid Storage Vessels
(Tanks)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 62-296, 62-297 and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For operation of (a) two vertical fixed roof fuel oil storage tanks (30,000 gallons each), one for No. 2 distillate fuel oil and one for No. 6 residual fuel oil; and (b) two vertical fixed roof D'Limonene storage tanks (24,000 gallons each). Air emissions of volatile organic compounds (VOC) are controlled by limiting the maximum true vapor pressure and throughput of the liquids stored.

The facility is located on the east side of C.R. 833, 0.5 mile south of S.R. 80, west of Clewiston, Hendry County, Florida.

PERMITTEE:
Southern Gardens Citrus
Processing Corporation

I.D. No. 52FTM260015/06
Permit/Cert. No. A026-260253
Date of Issue: Jan. 30, 1995
Expiration Date: Jan. 30, 2000

SPECIFIC CONDITIONS:

FACILITY OPERATIONS:

1. All equipment, pipes, hoses, lids, fittings, etc., shall be operated/maintained in such a manner as to minimize leaks, fugitive emissions and spills of VOC. [Rule 62-296.320(1)(a), F.A.C.].
2. SGPC (Southern Gardens Citrus Processing Corporation) shall take all reasonable precautions to prevent emissions of unconfined particulate matter. [Rule 62-296.310(3), F.A.C.].
3. SGPC shall not discharge air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.].
4. The hours of operation for these storage tanks are not restricted.
5. Issuance of this permit does not relieve SGPC from complying with applicable emission limiting standards or other requirements of Rules 62-210, 62-212, 62-252, 62-272, 62-273, 62-275, 62-296, and 62-297, F.A.C., or any other requirements under federal, state, or local law. SGPC shall comply with all applicable requirements of Chapter 62-762, F.A.C. [Rules 62-210.300 and 62-4.070(3), F.A.C.].

CONDITIONS OF COMPLIANCE:

6. VOC emissions from the four volatile organic liquid storage vessels (tanks) shall not exceed any of the following limits [Rule 62-296.320(1)(a), F.A.C., and as specified in the permit application]:

<u>Source</u>	<u>Maximum Pounds/Year</u>
Distillate Fuel Oil Tank	56
Residual Fuel Oil Tank	1
Two D'Limonene Tanks	440

Total	497

PERMITTEE:

Southern Gardens Citrus
Processing Corporation

I.D. No. 52FTM260015/06
Permit/Cert. No. AO26-260253
Date of Issue: Jan. 30, 1995
Expiration Date: Jan. 30, 2000

SPECIFIC CONDITIONS:

7. The maximum true vapor pressure of any liquid stored in any of the four storage tanks shall not exceed 15.0 kPa (2.176 psi). [40 CFR 60.110b(c)].

8. The annual throughput of No. 2 distillate fuel oil shall not exceed 2,045,400 gallons. The annual throughput of No. 6 residual fuel oil shall not exceed 2,520,000 gallons. [Rule 62-296.320(1)(a), F.A.C., and as specified in the permit application].

9. The sum total combined annual throughput rate of D'Limonene through the two D'Limonene storage tanks shall not exceed 168,509 gallons. [Rule 62-296.320(1)(a), F.A.C., and as specified in the permit application].

10. SGPC shall keep monthly records of fuel oil and D'Limonene throughput. At a minimum, the records shall indicate (a) the monthly throughput of No. 2 distillate fuel oil, (b) the monthly throughput of No. 6 residual fuel oil, (c) the monthly throughput of D'Limonene, and (d) a rolling cumulative 12 consecutive month total for each value required to be recorded. The records shall be maintained for a minimum of 2 years and made available to the Department upon request. [Rule 62-4.070(3), F.A.C.].

11. SGPC's permit application (dated 11/23/93) identifies all of the VOC chemical species emitted from these sources. SGPC shall notify the Department, in writing, of any proposed changes in VOC chemical species, prior to implementing the change. The notification shall provide updated maximum true vapor pressure data and maximum VOC emission calculations. Upon receiving such a notification, the Department may require SGPC to conform to new or additional conditions. The Department will allow SGPC a reasonable time to conform to any new or additional conditions. [Rule 62-4.070(3), F.A.C.].

GENERAL CONDITIONS:

12. An integral part of this permit is the attached 15 General Conditions. [Rule 62-4.160, F.A.C.]

REPORTS AND RECORD KEEPING:

13. SGPC shall keep readily accessible records showing the dimension of each storage tank and an analysis showing the capacity of each storage tank. These records shall be kept for the life of each storage tank. [40 CFR 60.116b(a) and (b)].

PERMITTEE:

Southern Gardens Citrus
Processing Corporation

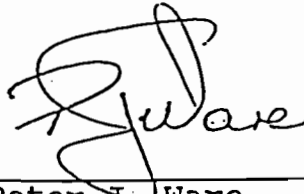
I.D. No. 52FTM260015/06
Permit/Cert. No. AO26-260253-
Date of Issue: Jan. 30, 1995
Expiration Date: Jan. 30, 2000

SPECIFIC CONDITIONS:

Note: In the event of an emergency, the permittee shall contact the Department by calling (904) 413-9911. During normal business hours, the permittee shall call (813) 332-6975.

Issued this 30th day of January, 1995.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Peter J. Ware
Director of
District Management

PJW/AEL/acl

10 Pages Attached

PERMITTEE:
Southern Gardens Citrus
Processing Corporation

I.D. No. 52FTM26001506
Permit/Cert. No. AO26-260253
Date of Issue: Jan. 30, 1995
Expiration Date: Jan. 30, 2000

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

- (a) Have access to and copy any records that must be kept under conditions of the permit;
- (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 17-4.120 and 17-730.300 F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:
- () Determination of Best Available Control Technology (BACT)
 - () Determination of Prevention of Significant Deterioration (PSD)
 - () Certification of compliance with state Water Quality Standards (Section 401, PL 92-500)
 - () Compliance with New Source Performance Standards
14. The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 1. the date, exact place, and time of sampling or measurements;
 2. the person responsible for performing the sampling or measurements;
 3. the dates analyses were performed;
 4. the person responsible for performing the analyses;
 5. the analytical techniques or methods used;
 6. the results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

AIR OPERATING PERMIT AMENDMENTS

BEST AVAILABLE COPY

ARMS UPDATED

0510015



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Wecherell
Secretary

November 2, 1995

CERTIFIED MAIL #Z 391 361 095
RETURN RECEIPT REQUESTED

FILE

Tristan Chapman
Vice President & General Manager
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

Hendry County - AP
DEP File No. AC26-241731
and AO26-260253
ARMS Facility ID # 0510015

Dear Mr. Chapman:

Thank you for your letter, through your representative KBN Engineering and Applied Science, Inc., dated July 21, 1995. We appreciate the fact that you notified us of an anomaly in the USEPA TANKS (Version 2.0) computer program.

The construction permit AC26-241731 is modified as follows:

FROM:

1. VOC emissions from the four volatile organic liquid storage vessels (tanks) shall not exceed any of the following limits [Reference Rule 17-296.320(1)(a), F.A.C., and as specified in the permit application]:

<u>Source</u>	<u>Maximum Pounds/year</u>
Distillate Fuel Oil Tank	56
Residual Fuel Oil Tank	1
Two D'Limone Tanks	440
Total	497

Tristan Chapman
November 2, 1995
Page Two

To:

1. VOC emissions from the four volatile organic liquid storage vessels (tanks) shall not exceed any of the following limits: [Reference Rule 62-296.320(1)(a), F.A.C., and as revised in the communication of July 21, 1995]:

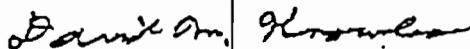
<u>Source</u>	<u>Maximum Pounds/year</u>
Distillate Fuel Oil Tank	72
Residual Fuel Oil Tank	1
Two D'Limonene Tanks	2228
Total	2301

The operation permit A026-260253, Specific Condition Number 6 reads exactly the same as Specific Condition Number 1 in the construction permit. Therefore the same changes apply to the operation permit.

This document becomes a part of both permit AC26-241731 and permit A026-260253.

If you have any questions or comments, please contact Arthur Lyall at this office.

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL PROTECTION



David M. Knowles, P.E.
District Air Program
Administrator

DMK/AEL/jw

Copies furnished to:

David A. Buff, P.E.

AIR CONSTRUCTION PERMIT



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

Virginia B. Weathers
Secretary

NOTICE OF PERMIT MODIFICATION

April 25, 1997

CERTIFIED MAIL #P 482 205 307
RETURN RECEIPT REQUESTED

In the Matter of an Application
for permit by:

Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

DEP File No.: 0510015
DEP Permit Number: 0510015-003-AC
Hendry County - AP

The applicant, Southern Gardens Citrus Processing Corporation, applied on April 15, 1997 to the Department of Environmental Protection for a permit modification to permit 0510015-003-AC to increase No. 2 fuel usage in the boiler and as such increase D-Limonene production. The following changes (additions) to the permit are hereby entered and are now a part of the permit:

SPECIFIC CONDITION:

FROM:

Delete specific conditions 5,7 and 8.

TO:

Add Specific Conditions:

5. VOC emissions from the seven (4 existing and 3 new) volatile organic liquid storage vessels (tanks) shall not exceed any of the following limits [Rule 62- 296.320(1)(a), F.A.C., and as specified in the letter dated April 15, 1997]:

SOURCE	MAXIMUM POUNDS/YEAR
2 DISTILLATE FUEL OIL TANKS	135.2
2 RESIDUAL FUEL OIL TANKS	1.7
3 d' LIMONENE TANKS	3636.8
TOTAL	3773.7

Southern Gardens Citrus Processing Corporation
DEP File No.: 0510015
April 25, 1997

7. The annual throughput of No. 2 distillate fuel oil shall not exceed 4,078,000 gallons. The annual throughput of No. 6 residual fuel oil shall not exceed 7,100,863 gallons.

[Reference Rule 62-296.320(1)(a), F.A.C., and as specified in the letter dated April 15, 1997]

8. The sum total combined annual throughput rate of d"limonene through the Three (3) d-limonene storage tanks shall not exceed 500,000 gallons.

[Reference Rule 62-296.320(1)(a), F.A.C., and as specified in the letter dated April 25, 1997]

Executed in Fort Myers, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

David M. Knowles

David M. Knowles, P.E.
District Air Program Administrator
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881
(941) 458-4211

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on April 25, 1997 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,

on this date, under section 120.52 (7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

David M. Knowles
(Clerk)

4-25-97
(Date)

DMK/JRS/jw

Copies furnished to:

David Buff, P.E.



Florida Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue
Fort Myers, Florida 33901

Virginia B. Wetherell
Secretary

PERMITTEE:

Southern Gardens Citrus
Processing Corporation
P.O. Box 1207
Clewiston, FL 33440

I.D. No. 52FTM260015/06
Permit/Certification
Number: AC26-241731
Date of Issue: Jan. 24, 1994
Expiration Date: Oct. 24, 1994
County: Hendry
Latitude: 26° 44' 30" N
Longitude: 81° 07' 30" W
Section/Town/Range: 15/43S/32E
Project: Four Volatile Organic
Liquid Storage Vessels
(Tanks)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-296, 17-297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For construction (after-the-fact) of (a) two vertical fixed roof fuel oil storage tanks (30,000 gallons each), one for No. 2 distillate fuel oil and one for No. 6 residual fuel oil; and (b) two vertical fixed roof D'Limonene storage tanks (24,000 gallons each). Air emissions of volatile organic compounds (VOC) are controlled by limiting the maximum true vapor pressure and throughput of the liquids stored.

The facility is located on the east side of C.R. 833, 0.5 mile south of S.R. 80, west of Clewiston, Hendry County, Florida.

PERMITTEE:

Southern Gardens Citrus
Processing Corporation

I.D. No. 52FTM260015/06
Permit/Cert. No. AC26-241731
Date of Issue: Jan. 24, 1994
Expiration Date: Oct. 24, 1994

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems

PERMITTEE:

Southern Gardens Citrus
Processing Corporation

I.D. No. 52FTM260015/06

Permit/Cert. No. AC26-241731

Date of Issue: Jan. 24, 1994

Expiration Date: Oct. 24, 1994

GENERAL CONDITIONS:

when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

- (a) Have access to and copy any records that must be kept under conditions of the permit;
- (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

PERMITTEE:

Southern Gardens Citrus
Processing Corporation

I.D. No. 52FTM260015/06
Permit/Cert. No. AC26-241731
Date of Issue: Jan. 24, 1994
Expiration Date: Oct. 24, 1994

GENERAL CONDITIONS:

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 17-4.120 and 17-730.300 F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Certification of compliance with state Water Quality Standards (Section 401, PL 92-500)
- (X) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

PERMITTEE:

Southern Gardens Citrus
Processing Corporation

I.D. No. 52FTM260015/06
Permit/Cert. No. AC26-241731
Date of Issue: Jan. 24, 1994
Expiration Date: Oct. 24, 1994

GENERAL CONDITIONS:

- (c) Records of monitoring information shall include:
1. the date, exact place, and time of sampling or measurements;
 2. the person responsible for performing the sampling or measurements;
 3. the dates analyses were performed;
 4. the person responsible for performing the analyses;
 5. the analytical techniques or methods used;
 6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

PERMITTEE:
Southern Gardens Citrus
Processing Corporation

I.D. No. 52FTM260015/06
Permit/Cert. No. AC26-241731
Date of Issue: Jan. 24, 1994
Expiration Date: Oct. 24, 1994

SPECIFIC CONDITIONS:

1. VOC emissions from the four volatile organic liquid storage vessels (tanks) shall not exceed any of the following limits [Rule 17-296.320(1)(a), F.A.C., and as specified in the permit application]:

<u>Source</u>	<u>Maximum Pounds/Year</u>
Distillate Fuel Oil Tank	56
Residual Fuel Oil Tank	1
Two D'Limonene Tanks	440

Total	497

2. The maximum true vapor pressure of any liquid stored in any of the four storage tanks shall not exceed 15.0 kPa (2.176 psi). [40 CFR 60.110b(c)].

3. Southern Gardens Citrus Processing Corporation (SGCPC) shall keep readily accessible records showing the dimension of each storage tank and an analysis showing the capacity of each storage tank. These records shall be kept for the life of each storage tank. [40 CFR 60.116b(a) and (b)].

4. The annual throughput of No. 2 distillate fuel oil shall not exceed 2,045,400 gallons. The annual throughput of No. 6 residual fuel oil shall not exceed 2,520,000 gallons. [Rule 17-296.320(1)(a), F.A.C., and as specified in the permit application].

5. The sum total combined annual throughput rate of D'Limonene through the two D'Limonene storage tanks shall not exceed 168,509 gallons. [Rule 17-296.320(1)(a), F.A.C., and as specified in the permit application].

6. SGCPC shall not discharge air pollutants which cause or contribute to an objectionable odor. [Rule 17-296.320(2), F.A.C.].

7. The hours of operation for these storage tanks are not restricted.

PERMITTEE:

Southern Gardens Citrus
Processing Corporation

I.D. No. 52FTM260015/06
Permit/Cert. No. AC26-241731
Date of Issue: Jan. 24, 1994
Expiration Date: Oct. 24, 1994

SPECIFIC CONDITIONS:

8. SGPCPC shall determine the maximum true vapor pressure of D'Limonene from a standard reference text or by ASTM Method D2879-83. The determination shall be made no later than 90 days after the issue date of this permit.
[40 CFR 60.110b(c) and Rule 17-4.070(3), F.A.C.].
9. SGPCPC shall file all test reports with the South District Office of the Department as soon as practical, but no later than 45 days after the test is complete.
[Rule 17-297.570(2), F.A.C.].
10. SGPCPC shall notify the South District Office of the Department of Environmental Protection at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner. [Rule 17-297.340(1)(i), F.A.C.].
11. SGPCPC shall keep monthly records of fuel oil and D'Limonene throughput. At a minimum, the records shall indicate (a) the monthly throughput of No. 2 distillate fuel oil, (b) the monthly throughput of No. 6 residual fuel oil, (c) the monthly throughput of D'Limonene, and (d) a rolling cumulative 12 consecutive month total for each value required to be recorded. The records shall be maintained for a minimum of 2 years and made available to the Department upon request. [Rule 17-4.070(3), F.A.C.].
12. All equipment, pipes, hoses, lids, fittings, etc., shall be operated/maintained in such a manner as to minimize leaks, fugitive emissions and spills of VOC.
[Rule 17-296.320(1)(a), F.A.C.].
13. SGPCPC shall take all reasonable precautions to prevent emissions of unconfined particulate matter.
[Rule 17-296.310(3), F.A.C.].
14. SGPCPC shall submit an annual operation report (DEP Form 17-213.900(4)) to the South District Office of the Department by March 1st of each year. The form should be reproduced and used for the annual submittals.
[Rule 17-4.070(3), F.A.C.].

PERMITTEE:

Southern Gardens Citrus
Processing Corporation

I.D. No. 52FTM260015/06
Permit/Cert. No. AC26-241731
Date of Issue: Jan. 24, 1994
Expiration Date: Oct. 24, 1994

SPECIFIC CONDITIONS:

15. SGCPC's permit application (dated 11/23/93) identifies all of the VOC chemical species emitted from these sources. SGCPC shall notify the Department, in writing, of any proposed changes in VOC chemical species, prior to implementing the change. The notification shall provide updated maximum true vapor pressure data and maximum VOC emission calculations. Upon receiving such a notification, the Department may require SGCPC to conform to new or additional conditions. The Department will allow SGCPC a reasonable time to conform to any new or additional conditions. [Rule 17-4.070(3), F.A.C.].

16. Issuance of this permit does not relieve SGCPC from complying with applicable emission limiting standards or other requirements of Rules 17-210, 17-212, 17-252, 17-272, 17-273, 17-275, 17-296, and 17-297, F.A.C., or any other requirements under federal, state, or local law. SGCPC shall comply with all applicable requirements of Chapter 17-762, F.A.C. [Rules 17-210.300 and 17-4.070(3), F.A.C.].

17. SGCPC shall submit an application for an operation permit (Certificate of Completion of Construction), and the results from the determination of the maximum true vapor pressure of D'Limonene, within 135 days of the issue date of this permit.

Note: In the event of an emergency, the permittee shall contact the Department by calling (904) 488-1320. During normal business hours, the permittee shall call (813) 332-6975.

Issued this 24th day of January, 1994.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Ronald D. Blackburn
Acting Director of
District Management

RDB/GM/gm

10 Pages Attached

PSD REPORT

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PSD REPORT

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A - PEEL DRYER TEST DATA

B - BACT DETERMINATION FOR BOILER NOS. 1 AND 2 - FEBRUARY 1992

C - AIR MODELING ANALYSIS DIRECTION-SPECIFIC BUILDING DATA

D - CALPUFF PARAMETER SETTINGS

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1.0 INTRODUCTION

Southern Gardens Citrus Processing Corporation (SGCPC) is a citrus processing facility located in Hendry County (see application form, Attachment SG-FI-E1). The SGCPC facility was originally permitted in June 1992 and began initial operations in January 1994. SGCPC currently holds construction and/or operating permits for four process steam boilers, a citrus peel dryer/waste heat evaporator, two pellet mills and three pellet coolers, a lime silo, four fuel oil storage tanks, and three D-limonene storage tanks.

SGCPC is proposing the addition of three citrus juice extractors to the existing juice extraction lines. Currently, the facility consists of three juice extraction lines with a total of 36 extractors. The current annual fruit processing capacity of the facility is approximately 17.5 million boxes per year. Under the plan, three additional extractors will be added bringing the total number of extractors to 39. With this addition, the maximum annual processing capacity of the facility will increase to 20 million boxes per year. The existing peel dryer, pellet mill, and process steam boilers are all capable of accommodating the increased production. No existing permitted production rates, capacities, or permit limits will require revision.

SGCPC is submitting this PSD analysis to address the PSD preconstruction review requirements, pursuant to rules and regulations implemented in the Clean Air Act (CAA) Amendments of 1977. The FDEP has PSD review and approval authority in Florida. Based on the PSD source applicability analysis, a PSD review is indicated for the following regulated pollutants: particulate matter (PM), PM with a particle size of 10 microns or less (PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), CO, and VOC emissions.

This application contains seven additional sections. A complete description of the facility, including air emission rates, is presented in Section 2.0. The air quality review requirements and new source review applicability are discussed in Section 3.0. Ambient monitoring requirements under PSD are addressed in Section 4.0. The best available control technology (BACT) analysis is presented in Section 5.0. The air quality impact analysis methodology is described in Section 6.0, and the impact analysis results are

presented in Section 7.0. Additional impacts on soils, vegetation and visibility are addressed in Section 8.0. The attachments contain supportive information.

2.0 DESCRIPTION OF SGPC FACILITY

2.1 INITIAL FACILITY CONSTRUCTION

SGPC initially permitted and constructed a citrus processing facility which included two steam boilers, a citrus peel dryer, two pellet mills and coolers, a lime silo, and associated juice extractors, evaporators, and juice, peel, and fuel oil storage and handling equipment. The initial air construction permit applications were submitted in December 1991, and the initial construction permits were issued in June 1992. The original applications were revised in November 1993 to reflect more up to date information, but the construction permits did not need to be revised.

A complete permitting history of the facility is provided in Table 2-1. All permits were issued by the Florida Department of Environmental Protection's (FDEP) South District office.

2.2 CURRENT FACILITY INFORMATION AND PROPOSED CHANGES

Several modifications have been permitted at the SGPC facility since the original air construction permits were issued. The discussion provided below provides a description of the current facility configuration. For other permitting events, refer to Table 2-1. This section also describes the proposed extractors addition.

2.2.1 BOILER NOS. 1, 2, 3, AND 4

Currently, four process steam boilers are permitted at SGPC. Boiler Nos. 1 and 2 are identical, while Boiler No. 3 is very similar to Boiler Nos. 1 and 2 in design capacity, and Boiler 4 is a much smaller package boiler. Boiler Nos. 1 and 2 have a maximum heat input capacity of 33.6 MMBtu/hr, Boiler 3 has a maximum heat input capacity of 35.6 MMBtu/hr, and Boiler 4 has a maximum heat input capacity of 6.3 MMBtu/hr. Boiler Nos. 1, 2, 3 are each subject to 40 CFR 60, Subpart Dc, which is the federal new source performance standards for small industrial boilers. Each boiler is permitted to operate up to 8,760 hr/yr. Boiler No. 4 was permitted as a standby boiler; i.e., Boiler No. 4 can operate only when one of the other boilers is shutdown. All the boilers discharge through the 55-foot-high common stack.

Boiler operation is limited by a total No. 2 fuel oil consumption limit of 4,078,000 gal/yr. The maximum allowable sulfur content is 0.5 percent. Although an individual boiler may operate at maximum capacity, the overall fuel oil usage cap limits total annual emissions.

The proposed extractors addition will not require modification of the existing boiler permit limits and restrictions. However, the additional fruit processing will potentially increase steam usage and result in an associated increase in boiler operation.

2.2.2 CITRUS FEED MILL: PEEL DRYER/WASTE HEAT EVAPORATOR

The 60,000 lb/hr (water evaporation rate) peel dryer operates with a maximum heat input rate of 84.0 MMBtu/hr. The maximum wet peel input rate is approximately 47 TPH at 74 percent moisture, with a dry peel product rate of approximately 20.5 TPH at 10 percent moisture. 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. SGPC utilizes 1.5 percent sulfur No. 6 fuel oil in the dryer, with a wet scrubber as control equipment. The peel dryer is permitted to operate up to 6,000 hr/yr.

The scrubbing system on the peel dryer/waste heat evaporator system is comprised of water sprays located in the exhaust stack. The sprays are located in the upper portion of the stack, and the liquid droplets fall downward through the stack in countercurrent flow to the exhaust gases. The base of the stack is comprised of a tank in which the scrubbing liquid is collected. The liquid is then recycled back to the water sprays at the top of the stack.

The inherent SO₂ absorption in the peel dryer, in combination with the wet scrubbing system, has been found to limit SO₂ emissions to below 0.5 lb/MMBtu heat input to the dryer. Based on the scrubber design, the particulate removal efficiency is a function of the total amount of water delivered to the spray nozzles. Therefore, SGPC has an existing permit condition requiring the measurement of total water flow to the nozzles.

2.2.3 PELLET MILL

SGCPC'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 PM control equipment since they are utilized to collect product. The total maximum operating hours of the pellet mill are 6,000 hr/yr.

2.2.4 VOLATILE ORGANIC COMPOUND STORAGE TANKS

SGCPC has seven (7) VOC storage tanks; two (2) vertical fixed roof No. 2 fuel oil tanks (30,000 gallons each); two (2) vertical fixed roof No. 6 fuel oil tanks (30,000 gallons each); and three (3) vertical fixed roof D-Limonene storage tanks (24,000 gallons each). Throughput rates are limited by the specific material stored in the tanks. The maximum permitted annual throughput rates are:

- No. 2 fuel oil - 4,078,000 gallons,
- No. 6 fuel oil - 7,100,863 gallons, and
- D-Limonene - 500,000 gallons.

2.2.5 LIME SILO

SGCPC operates a previously permitted 50,000 lb capacity lime silo with a baghouse as control equipment. The lime silo is an unregulated emission unit.

2.2.6 PROPOSED CHANGES

SGCPC is proposing to add additional fruit processing capability to the facility by adding additional extractors and making other associated changes. These changes are summarized as follows:

- Add one juice extractor to Line B (increase from 12 to 13 extractors);
- Add two juice extractors to Line C (increase from 12 to 14 extractors);
- Integrate new extractors into fruit delivery system, peel/juice removal systems, and process control systems;

- Fruit receiving - add fourth unloading ramp; and
- Add provisions and tanks to load-out recovered molasses tanks.

2.3 FACILITY EMISSIONS

2.3.1 CURRENT ACTUAL FACILITY EMISSIONS

The SGPC facility's current actual emissions, shown in Table 2-2, are based on actual operating data for 1998-1999. Actual emissions from all sources are based on Annual Operating Report (AOR) data, except as described as follows. The actual VOC emissions from the peel dryer and pellet cooler are based on the actual level of citrus oil recovery and the general FCPA emission factor for peel dryers and pellet coolers, as shown in Table 2-3. The 1998-1999 and 1999-2000 processing season data were used as representative of 1998 and 1999, respectively. Actual CO emissions from the peel dryer were estimated at 60 percent of VOC emissions, based on previous stack test results, although the latest stack testing indicated CO emissions at about 160 percent of VOC emissions.

2.3.2 FUTURE POTENTIAL EMISSIONS

Future potential emissions from the SGPC facility are also presented in Table 2-2. The future potential is based on 20 million boxes of fruit per year. Based on the analysis of stack test data (see Attachment A), SGPC proposes to lower the current allowable PM/PM₁₀ emission rate for the pellet cooler. For purposes of estimating maximum potential VOC emissions, an overall citrus oil recovery of 50 percent was assumed. Future potential VOC emissions from the peel dryer and cooler are shown in Table 2-3, based on mass balance and the FCPA factors. The mass balance accounts for oil recovered, oil destroyed in the dryer, oil remaining in the pellets, oil in the juice, and oil in the wastewater.

The potential future maximum and annual emissions and emission factors for the peel dryer are shown in Table 2-4. The pellet cooler emissions are shown in Table 2-5. Future potential emissions from the four steam boilers do not change compared to the current potential emissions, and are shown in Table 2-6.

2.4 STACK PARAMETERS AND LOCATIONS

The stack locations and stack parameters for the facility's four boilers, citrus feed mill peel dryer, and pellet mill coolers are shown in Table 2-7. These sources are included in the atmospheric dispersion modeling analysis presented in Sections 6.0 and 7.0. Boiler No. 4 and Pellet Coolers Nos. 1 and 2 were not included in the modeling analysis since they can only operate when one of the larger main boilers is shutdown. The lime silo was also not included based on its very low PM emissions.

Table 2-1. Permit History of Southern Gardens Citrus Processing Corporation

Month/Year	Emissions Unit	Applicable Permit Numbers	Description
Dec-91	Boiler Nos. 1 and 2; Feed Mill/ Peel Dryer; Pellet Mills/Coolers 1 and 2	N/A	Original construction permit applications submitted.
Jun-92	Boiler No. 1 Boiler No. 2 Feed Mill/ Peel Dryer Pellet Mills/Coolers 1 and 2	AC26-206066 AC26-206068 AC26-206069 AC26-206072	Original air construction permits issued.
Nov-93	Boiler Nos. 1 and 2; Feed Mill/ Peel Dryer; Pellet Mills/Coolers 1 and 2 Fuel oil (2) and d-limonene (2) tanks; Lime Silo	N/A	Applications to revise original air construction permits submitted. Initial construction permit applications for 4 VOL tanks. Initial construction permit application submitted.
Jan-94	Fuel oil (2) and d-limonene (2) tanks Lime Silo	AC26-241731 AC26-241213	Original construction permit issued. Original construction permit issued.
Nov-94	Boiler Nos. 1 and 2; Feed Mill/ Peel Dryer; Pellet Mills/Coolers 1 and 2	N/A	Phase II expansion applications submitted: increase operating hours and capacity of waste heat evaporator; increase number of juice extractors from 24 to 36.
Jan-95	Fuel oil (2) and d-limonene (2) tanks Lime Silo	AO26-260253 AO26-260252	Original operating permit issued for 4 VOL tanks. Original operating permit issued.
Feb-95	Boiler Nos. 1 and 2 Feed Mill/ Peel Dryer Pellet Mills/Coolers 1 and 2	AC26-260240 AC26-260242 AC26-260243	Phase II expansion air construction permits issued.
Feb-95	Boiler Nos. 1 and 2 Feed Mill/ Peel Dryer Pellet Mills/Coolers 1 and 2	AO26-260246 AO26-260247 AO26-260249	Initial air operating permits issued based on Phase II construction permits.
Sep-95	Boiler No. 3; Feed Mill/ Peel Dryer	N/A	Application to construct Boiler No. 3 and increase sulfur content of fuel oil used in peel dryer.
Mar-96	Feed Mill/Peel Dryer	0510015-002-AC	Air construction and air operating permit for feed mill revised to allow higher sulfur content in fuel oil.
Jul-96	Boiler No. 3 New fuel oil (2) and d-limonene tanks	051-0015-001-AC N/A	Boiler No. 3 air construction permit issued. Application to construct three new VOL tanks.
Sep-96	New fuel oil (2) and d-limonene tanks	0510015-003-AC	Construction permit for 3 VOL tanks.
Jul-97	Pellet Mill No. 3; Boiler Nos. 1, 2 and 3	0510015-005-AC	Air construction permit for Pellet Mill No. 3 and boiler operating flexibility issued.
Apr-97	Modify 4 fuel oil and 3 d-limonene tanks	0510015-003-AC	Modify tanks throughput and VOC limits.
Jul-98	Boiler No. 4	0510015-006-AC	Boiler No. 4 air construction permit issued.
Jun-00	Proposed Title V operating permit	0510015-004-AV	Proposed Title V permit sent to EPA for review.

Table 2-2. Summary of Emissions, Southern Gardens Citrus Processing Corporation

Source/Pollutant	Actual 1998-1999 Emissions ^a (TPY)	Future Potential Emissions ^b (TPY)
<u>Boilers 1-4</u>		
PM	1.43	4.08
PM ₁₀	0.71	2.04
SO ₂	20.8	141
NO _x	14.3	40.8
CO	3.57	10.2
VOC	0.14	0.41
<u>Peel Dryer/WHE</u>		
PM	15.3	96.2
PM ₁₀	13.7	96.2
SO ₂	20.5	126.0
NO _x	10.9	61.5
CO ^d	626	2,881
VOC	1,043	1,801
<u>Pellet Cooler 1</u>		
PM/PM ₁₀	0.04	c
VOC	13.0	c
<u>Pellet Cooler 2</u>		
PM/PM ₁₀	0.00	c
VOC	0.00	c
<u>Pellet Cooler 3</u>		
PM/PM ₁₀	0.33	15.0
VOC	130.5	225.1
Totals:		
PM	17.1	115.3
PM ₁₀	14.8	113.2
SO ₂	41.3	266.7
NO _x	25.1	102.3
CO	629	2,892
VOC	1,187	2,026

Footnotes

^a Actual emissions are an average of the 1998-1999 AOR emissions, except for NO_x, VOC and CO.

^b Total potential emissions for boilers are based on fuel cap, prorated to each boiler based on individual boiler capacities. Boiler No. 4 is a standby unit and was not considered.

^c Boiler No. 4 and Pellet Cooler Nos. 1 and 2 are standby units; not considered in potential to emit.

^d Future potential emissions based on 160% of VOC emissions.

Notes

Lime Silo emissions not considered in analysis because PM emissions are minimal.

Current PM permit limits are 0.002 TPY. VOL Storage Tank emissions not considered because VOC emissions are minimal. Current VOC permit limits are 1.89 TPY.

Table 2-3 . Current Actual and Maximum Future VOC Emissions, Southern Gardens Citrus Processing Corp.

Parameter	Actual 1997-1998	Actual 1998-1999	Actual 1999-2000	Maximum Future Emissions
Boxes of Fruit (boxes/yr)	16,020,297	13,311,641	16,658,434	20,000,000
Available Oil in Fruit (lbs) (lbs/box)	7,747,065 0.484	6,411,688 0.482	9,514,140 0.571	10,351,000 0.518
Cold press peel oil (lbs)	1,044,127	599,415	3,212,072	--
D-Limonene (lbs)	3,476,402	2,808,761	2,831,699	--
Oil Phase essence (lbs)	109,826	29,260	34,769	--
Total oil recovered (lbs) (percent recovered)	4,630,355 59.77%	3,437,436 53.61%	6,078,540 63.89%	5,175,500 50.00%
Black water to sewer (a)	24,000	24,000	24,000	24,000
Oil in NFC juice (lbs) (b)	161,485	134,181	144,059	172,956
Total oil to dryer (COD) Percent oil recovered/juice/ sewered	2,955,225 61.85%	2,840,071 55.70%	3,291,541 65.40%	5,002,544 51.67%
Pellets @ 11% H2O (TPY)	73,734	60,814	80,673	92,135
Pressed peel moisture (%)	70.0	70.0	70.0	67.0
Pressed peel to dryer (TPY)	218,744	180,415	239,330	248,485
VOC emitted- dryer/WHE				
(0.72 x COD) (c)	(lbs) 2,127,762	2,044,851	2,369,910	3,601,832
	(tons) 1,064	1,022	1,185	1,801
VOC destruction in dryer (d)	331,038	345,334	375,508	668,506
VOC from pellet coolers				
(0.09 x COD) (e)	(lbs) 265,970	255,606	296,239	450,229
	(tons) 133	128	148	225
VOC remaining in pellets (f)	206,455	170,279	225,884	257,978
SUMMARY				
Total oil available (lbs)	7,747,065	6,411,688	9,514,140	10,351,000
Oil recovered/sewered/juice (lbs)	4,815,840	3,595,617	6,246,599	5,372,456
VOC emitted- dryer/cooler (lbs) (as percent of total oil available)	2,393,733 31%	2,300,457 36%	2,666,148 28%	4,052,061 39%
VOC destroyed in dryer (lbs) (as percent of oil to dryer)	331,038 11%	345,334 12%	375,508 11%	668,506 13%
VOC in pellets (lbs)	206,455	170,279	225,884	257,978
VOC unaccounted for (lbs)	0	0	0	0

(a) Based on estimate of 100 lbs/day VOC to sewer.

(b) Based on 6 gal juice/box, 80% NFC, 7 lb juice/gal and 0.03% oil in juice, except 1999-2000 and future based on: 71% NFC and 0.029% oil in juice.

(c) Based on FCPA report equation which predicts that 72% of citrus oil to dryer (COD) is emitted out dryer stack. COD equals available oil minus total oil recovered.

(d) Assumes unaccounted for VOC is destroyed in the peel dryer.
i.e., (Total oil available) minus (Oil recovered) minus (VOC emitted from dryer/WHE)
minus (VOC from pellet coolers) minus (VOC remaining in pellets)

(e) Based on FCPA report equation which predicts that 9% of citrus oil to dryer is emitted out pellet cooler stack.

(f) Based on average of 2.8 lb/ton pellets, from 03/05/97 and 04/07/99 stack testing.

Table 2-4. Future Potential Emissions for 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	--	96.2
Particulate (PM10)	100% of PM	2	--	32.05	--	96.2
Sulfur dioxide	0.5 lb/MMBtu	3	84.0 MMBtu/hr	42.0	504,000 MMBtu/hr	126.0
Nitrogen oxides	1.5 lb/ton BDP	4	18.5 tons/hr BDP	27.7	82,000 tons/yr BDP	61.5
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	70.28 lb/ton BDP	5	--	--	82,000 tons/yr BDP	2,881.5
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	43.93 lb/ton BDP	6	--	--	82,000 tons/yr BDP	1,800.9

See Table 6-4

191.81 g/s

In modeling

Footnotes

^a Currently permitted heat input rate; throughput rate is maximum.

^b Based on 20 million boxes of fruit per year; 8.2 lb bone dry peel per box, and 6,000 hr/yr.

BDP = bone dry peel

References:

1. Maximum emission based on Process Weight Formula, $E = 17.31 * P^{0.16}$, where E is in lb/hr and P = 47 TPY throughput rate (62-296.320.(4)(a) F.A.C.).
2. Conservative assumption.
3. Currently 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 50% oil recovery (51.67% overall oil recovered/juice/sewered).
 Valencia -- 0.6076 lb oil/box and a 50% oil recovery (51.67% overall oil recovered/juice/sewered).
 Annual Average - assumes a 50/50 mix of Valencia and Early/Mids.
 Based on 90 lb fruit/box; 8.2 lb bone dry peel/box; 72% of oil to dryer emitted from dryer stack.

Table 2-5. Future Potential Emissions for Citrus Pellet Mill 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)	5.00 lb/hr	1	--	5.0	6,000 hr/yr	15.0
Particulate (PM10)	100% % of PM	2	--	5.0	--	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	5.49 lb/ton BDP	3	--	--	82,000 TPY BDP	225.1

see Table 6-4

Footnotes

^a Based on maximum throughput rate.

^b Based on 20 million boxes of fruit per year, 8.2 lb bone dry peel per box, and 6,000 hr/yr.

References:

1. Maximum emissions based on stack test data.

2. Conservative assumption.

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

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

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

 Annual Average -- assumes a 50/50 mix of Valencia and Early/Mids.

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

Table 2-6. Potential Emissions for Boiler Nos. 1, 2, 3, and 4, Southern Gardens Citrus Processing Corporation

Parameter	Boiler No. 1	Boiler No. 2	Boiler No. 3	Boiler No. 4	Total Boiler Nos. 1, 2, 3, and 4
OPERATING DATA					
Operating Time (hr/yr)	8,760	8,760	8,760	8,760	-
Heat Input Rate (MMBtu/hr)	33.6 <i>x 0.5</i>	33.6 <i>x 0.5</i>	35.6 <i>x 0.5</i>	6.3 <i>x 0.5</i>	-
Heat Input Rate (MMBtu/yr)	294,336	294,336	311,856	55,188	-
Fuel Oil Use (gal/hr) ^a	243.5	243.5	258.0	45.7	-
Fuel Oil Use (gal/yr)	2,132,870	2,132,870	2,259,826	399,913	4,078,000
Maximum Sulfur Content (Wt %)	0.5	0.5	0.5	0.5	0.5

Pollutant	Emission Factor ^b	No. 2 Fuel Oil		No. 2 Fuel Oil		No. 2 Fuel Oil		No. 2 Fuel Oil		No. 2 Fuel Oil
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	TPY
EMISSIONS DATA										
SO ₂ : Fuel Oil	0.5 lb/MMBtu ^d	16.80	73.58	16.80	73.58	17.80	77.96	3.24	14.20 ^c	140.69
NO _x : Fuel Oil	20 lb/1000 gal	4.87	21.33	4.87	21.33	5.16	22.60	0.91	4.00	40.78
PM: Fuel Oil	2.00 lb/1000 gal	0.49	2.13	0.49	2.13	0.52	2.26	0.09	0.40	4.08
PM ₁₀ : Fuel Oil	1.00 lb/1000 gal	0.24	1.07	0.24	1.07	0.26	1.13	0.05	0.20	2.04
VOC: Fuel Oil	0.556 lb/1000 gal	0.14	0.59	0.14	0.59	0.14	0.63	0.03	0.11	1.13
CO: Fuel Oil	5 lb/1000 gal	1.22	5.33	1.22	5.33	1.29	5.65	0.23	1.00	10.20

Note: NA = not applicable.

^a Based on 138,000 Btu/gal for 0.5% S oil.

^b Based on AP-42 factors for distillate oil fired commercial boilers or permit condition.

^c Boiler No. 4 emissions factor based on AP-42 Factor = 142*S lb/1000 gallons.

^d Based on current permit limit.

*TPY for each of boilers is correct
Permit limitation is handwritten
in permit*

Table 2-7. Summary of Stack Parameters for Current and Future Sources Used in Modeling of Southern Gardens Citrus Processing Corporation

Emission Unit	Model ID	Stack Parameters				Operating Parameters				Relative Location ^b			
		Height		Diameter		Temperature		Velocity		X		Y	
		(ft)	(m)	(ft)	(m)	(°F)	(°K)	(ft/s)	(m/s)	(ft)	(m)	(ft)	(m)
CURRENT													
Combined Boiler Stack ^a	BoilerC	55	16.8	4.0	1.22	400	478	46.7	14.22	155	47.2	33	10.1
Citrus Peel Dryer ^d	Dryer/WHC	125	38.1	5.7	1.73 ^c	156	342	24.0	7.32	14	4.27	43	13.1
Citrus Pellet Cooler	PelletC	40	12.2	2.0	0.61	110	316	73.7	22.48	152	46.3	17	5.18
FUTURE													
Boiler No. 1		55	16.8	4.0	1.22	400	478	15.6	4.74	155	47.2	33	10.1
Boiler No. 2		55	16.8	4.0	1.22	400	478	15.6	4.74	155	47.2	33	10.1
Boiler No. 3		55	16.8	4.0	1.22	400	478	15.6	4.74	155	47.2	33	10.1
Combined Boiler Stack ^a	Boilers	55	16.8	4.0	1.22	400	478	46.7	14.22	155	47.2	33	10.1
Citrus Peel Dryer	Dryer/WH	125	38.1	5.7	1.73 ^c	175	353	24.5	7.45	14	4.27	43	13.1
Citrus Pellet Cooler	Pellet	40	12.2	2.0	0.61	110	316	73.7	22.48	152	46.3	17	5.18

Note:

Lime Silo not included, insignificant emissions.

Boiler No. 4 not modeled, much smaller unit that only operates if one of the main boilers is down.

^a Common stack for Boiler Nos. 1-4; flow rate for Boiler Nos. 1-3 is 35,184 acfm (11,728 acfm each).

^b Southeast corner of the Feed Mill building.

^c Citric pell dayer stack increased from 46 inches to 68 inches (See letter dated 10/99 from P. Wesson to Mr. Phillip Barbaccia, Environmental Administrator / Air Florida Department of Environmental Protection).

^d Temperature and velocity from 4/18/2000 stack test.

3.0 AIR QUALITY REVIEW REQUIREMENTS AND APPLICABILITY

Federal and state air regulatory requirements for a new source of air pollution are discussed in Sections 3.1 to 3.4. The applicability of these regulations to the SGPCPC proposed project is presented in Section 3.5.

3.1 NATIONAL AND STATE AAQS

The existing applicable national and Florida Ambient Air Quality Standards (AAQS) are presented in Table 3-1. Primary national AAQS were promulgated to protect the public health, and secondary national AAQS were promulgated to protect the public welfare from any known or anticipated adverse effects associated with the presence of pollutants in the ambient air. Areas of the country in violation of AAQS are designated as non-attainment areas, and new sources to be located in or near these areas may be subject to more stringent air permitting requirements.

Florida has adopted state AAQS in Rule 62-204.240. These standards are the same as the national AAQS, except in the case of SO₂. For SO₂, Florida has adopted the former 24-hour secondary standard of 260 µg/m³, and former annual average secondary standard of 60 µg/m³.

3.2 NATIONAL AND STATE AAQS AND PSD REQUIREMENTS

3.2.1 GENERAL REQUIREMENTS

Under federal and State of Florida PSD review requirements, all major new or modified sources of air pollutants regulated under the Clean Air Act (CAA) must be reviewed and a pre-construction permit issued. Florida's State Implementation Plan (SIP), which contains PSD regulations, has been approved by EPA; therefore, PSD approval authority has been granted to the FDEP.

A "major facility" is defined as any one of 28 named source categories that have the potential to emit 100 TPY or more or any other stationary facility that has the potential to emit 250 TPY or more of any pollutant regulated under CAA. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant after the application of

control equipment. Once a new source is determined to be a "major facility" for a particular pollutant, any pollutant emitted in amounts greater than the PSD significant emission rates is subject to PSD review. For an existing source for which a modification is proposed, the modification is subject to PSD review if the net increase in emissions due to the modification is greater than the PSD significant emission rates. The PSD significant emission rates are shown in Table 3-2.

EPA has promulgated limits to increases above a specified air quality baseline concentration level for SO₂, PM₁₀, and NO₂ that would constitute "significant deterioration". The EPA class designations and allowable PSD increments are presented in Table 3-1. The magnitude of the allowable increment depends on the classification of the area in which a new source (or modification) will be located or have an impact. Three classifications are designated based on criteria established in the Clean Air Act Amendments. Congress promulgated areas as Class I (international parks, national wilderness areas, and memorial parks larger than 5,000 acres, and national parks larger than 6,000 acres) or as Class II (all areas not designated as Class I). No Class III areas, which would be allowed greater deterioration than Class II areas, were designated. The State of Florida has adopted the EPA class designations and allowable PSD increments for SO₂, PM₁₀, and NO₂ increments.

PSD review is used to determine whether significant air quality deterioration will result from the new or modified facility. Federal PSD requirements are contained in 40 CFR 52.21, Prevention of Significant Deterioration of Air Quality. The State of Florida has adopted the federal PSD regulations by reference (Rule 62-212.400, F.A.C.). Major facilities and major modifications are required to undergo the following analysis related to PSD for each pollutant emitted in significant amounts:

1. Control technology review,
2. Source impact analysis,
3. Air quality analysis (monitoring),
4. Source information, and
5. Additional impact analyses.

In addition to these analyses, a new facility also must be reviewed with respect to Good Engineering Practice (GEP) stack height regulations. Discussions concerning each of these requirements are presented in the following sections.

3.2.2 CONTROL TECHNOLOGY REVIEW

The control technology review requirements of the federal and state PSD regulations require that all applicable federal and state emission-limiting standards be met, and that Best Available Control Technology (BACT) be applied to control emissions from the source. The BACT requirements are applicable to all regulated pollutants for which the increase in emissions from the facility exceeds the significant emission rate (see Table 3-2).

BACT is defined in 40 CFR 52.21 (b)(12), as:

An emissions limitation (including a visible emission standard) based on the maximum degree of reduction of each pollutant subject to regulation under the Act which would be emitted by any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant, which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60 and 61. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular part of a source or facility would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice, or operation and shall provide for compliance by means, which achieve equivalent results.

BACT was promulgated within the framework of the PSD requirements in the 1977 amendments of the CAA [Public Law 95-95; Part C, Section 165(a)(4)]. The primary purpose of BACT is to optimize consumption of PSD air quality increments and thereby enlarge the potential for future economic growth without significantly degrading air

quality (EPA, 1978; 1980). Guidelines for the evaluation of BACT can be found in EPA's *Guidelines for Determining Best Available Control Technology (BACT)* (EPA, 1978) and in the *PSD Workshop Manual* (EPA, 1980). These guidelines were promulgated by EPA to provide a consistent approach to BACT and to ensure that the impacts of alternative emission control systems are measured by the same set of parameters. In addition, through implementation of these guidelines, BACT in one area may not be identical to BACT in another area. According to EPA (1980), "BACT analyses for the same types of emissions unit and the same pollutants in different locations or situations may determine that different control strategies should be applied to the different sites, depending on site-specific factors. Therefore, BACT analyses must be conducted on a case-by-case basis."

The BACT requirements are intended to ensure that the control systems incorporated in the design of a proposed facility reflect the latest in control technologies used in a particular industry and take into consideration existing and future air quality in the vicinity of the proposed facility. BACT must, as a minimum, demonstrate compliance with new source performance standards (NSPS) for a source (if applicable). An evaluation of the air pollution control techniques and systems, including a cost-benefit analysis of alternative control technologies capable of achieving a higher degree of emission reduction than the proposed control technology, is required. The cost-benefit analysis requires the documentation of the materials, energy, and economic penalties associated with the proposed and alternative control systems, as well as the environmental benefits derived from these systems. A decision on BACT is to be based on sound judgment, balancing environmental benefits with energy, economic, and other impacts (EPA, 1978).

3.2.3 SOURCE IMPACT ANALYSIS

A source impact analysis must be performed for a proposed major source or major modification subject to PSD review, and for each pollutant for which the increase in emissions exceeds the PSD significant emission rate (Table 3-2). The PSD regulations specifically provide for the use of atmospheric dispersion models in performing impact analyses, estimating baseline and future air quality levels, and determining compliance

with AAQS and allowable PSD increments. Designated EPA models normally must be used in performing the impact analysis. Specific applications for other than EPA-approved models require EPA's consultation and prior approval. Guidance for the use and application of dispersion models is presented in the EPA publication *Guideline on Air Quality Models* (EPA, 1980).

To address compliance with AAQS and PSD Class II increments, a source impact analysis must be performed for the criteria pollutants. However, this analysis is not required for a specific pollutant if the net increase in impacts as a result of the new source or modification is below significant impact levels, as presented in Table 3-1. The significant impact levels are threshold levels that are used to determine the level of air impact analyses needed for the project. If the new or modified source's impacts are predicted to be less than significant, then the source's impacts are assumed not to have a significant adverse affect on air quality and additional modeling with other sources is not required. However, if the source's impacts are predicted to be greater than the significant impact levels, additional modeling with other sources is required to demonstrate compliance AAQS and PSD increments.

EPA has proposed significant impact levels for Class I areas as follows:

- | | | |
|--------------------|---------|-----------------------|
| • SO ₂ | 3-hour | 1 µg/m ³ |
| | 24-hour | 0.2 µg/m ³ |
| | Annual | 0.1 µg/m ³ |
| • PM ₁₀ | 24-hour | 0.3 µg/m ³ |
| | Annual | 0.2 µg/m ³ |
| • NO ₂ | Annual | 0.1 µg/m ³ |

Although these levels have not been officially promulgated as part of the PSD review process and may not be binding for states in performing PSD review, the proposed levels serve as a guideline in assessing a source's impact in a Class I area. The EPA action to incorporate Class I significant impact levels in the PSD process is part of implementing NSR provisions of the 1990 CAA Amendments. Because the process of developing the

regulations will be lengthy, EPA believes that the proposed rules concerning the significant impact levels is appropriate in order to assist states in implementing the PSD permit process.

Various lengths of record for meteorological data can be used for impact analysis. A 5-year period is normally used with corresponding evaluation of highest, second-highest short-term concentrations for comparison to AAQS or PSD increments. The meteorological data are selected based on an evaluation of measured weather data from a nearby weather station that represents weather conditions at the project site. The criteria used in this evaluation include determining the distance of the project site to the weather station; comparing topographical and land use features between the locations; and determining availability of necessary weather parameters.

The term "highest, second-highest" (HSH) refers to the highest of the second-highest concentrations at all receptors (i.e., the highest concentration at each receptor is discarded). The second-highest concentration is important because short-term AAQS specify that the standard should not be exceeded at any location more than once a year. If fewer than 5 years of meteorological data are used in the modeling analysis, the highest concentration at each receptor normally must be used for comparison to air quality standards.

The term "baseline concentration" evolves from federal and state PSD regulations and refers to a concentration level corresponding to a specified baseline date and certain additional baseline sources. By definition, in the PSD regulations as amended August 7, 1980, baseline concentration means the ambient concentration level that exists in the baseline area at the time of the applicable baseline date. A baseline concentration is determined for each pollutant for which a baseline date is established and includes:

1. The actual emissions representative of facilities in existence on the applicable baseline date; and
2. The allowable emissions of major stationary facilities that commenced construction before January 6, 1975, for SO₂ and PM(TSP) concentrations, or

February 8, 1988, for NO₂ concentrations, but that were not in operation by the applicable baseline date.

The following emissions are not included in the baseline concentration and therefore affect PSD increment consumption:

1. Actual emissions from any major stationary facility on which construction commenced after January 6, 1975, for SO₂ and PM(TSP) concentrations, and after February 8, 1988, for NO₂ concentrations; and
2. Actual emission increases and decreases at any stationary facility occurring after the baseline date.

In reference to the baseline concentration, the term "baseline date" actually includes three different dates:

- The major facility baseline date, which is January 6, 1975, in the cases of SO₂ and PM(TSP), and February 8, 1988, in the case of NO₂.
- The minor facility baseline date, which is the earliest date after the trigger date on which a major stationary facility or major modification subject to PSD regulations submits a complete PSD application.
- The trigger date, which is August 7, 1977, for SO₂ and PM(TSP), and February 8, 1988, for NO₂.

3.2.4 AIR QUALITY MONITORING REQUIREMENTS

In accordance with requirements of 40 CFR 52.21(m), any application for a PSD permit must contain an analysis of continuous ambient air quality data in the area affected by the proposed major stationary facility or major modification. For a new major facility, the affected pollutants are those that the facility potentially would emit in significant amounts. For a major modification, the pollutants are those for which the net emissions increase exceeds the significant emission rate (see Table 3-2).

Ambient air monitoring for a period of up to 1 year generally is appropriate to satisfy the PSD monitoring requirements. A minimum of 4 months of data is required. Existing

data from the vicinity of the proposed source may be used if the data meet certain quality assurance requirements; otherwise, additional data may need to be gathered. Guidance in designing a PSD monitoring network is provided in EPA's *Ambient Monitoring Guidelines for Prevention of Significant Deterioration* (EPA, 1987a).

The regulations include an exemption that excludes or limits the pollutants for which an air quality analysis must be conducted. This exemption states that FDEP may exempt a proposed major stationary facility or major modification from the monitoring requirements with respect to a particular pollutant if the emissions increase of the pollutant from the facility or modification would cause, in any area, air quality impacts less than the *de minimis* levels presented in Table 3-2.

3.2.5 SOURCE INFORMATION/GOOD ENGINEERING PRACTICE STACK HEIGHT

Source information must be provided to adequately describe the proposed project. The general type of information required for this project is presented in Section 2.0.

The 1977 CAA Amendments require that the degree of emission limitation required for control of any pollutant not be affected by a stack height that exceeds GEP or any other dispersion technique. On July 8, 1985, EPA promulgated final stack height regulations (EPA, 1985a). The Florida DEP has adopted identical regulations (Rule 62-210.550, F.A.C.). GEP stack height is defined as the highest of:

1. 65 meters (m); or
2. A height established by applying the formula:

$$H_g = H + 1.5L$$

where: H_g = GEP stack height,
 H = Height of the structure or nearby structure, and
 L = Lesser dimension (height or projected width) of nearby structure(s); or

A height demonstrated by a fluid model or field study.

"Nearby" is defined as a distance up to five times the lesser of the height or width dimensions of a structure or terrain feature, but not greater than 0.8 km. Although GEP stack height regulations require that the stack height used in modeling for determining compliance with AAQS and PSD increments not exceed the GEP stack height, the actual stack height may be greater.

The stack height regulations also allow increased GEP stack height beyond that resulting from the above formula in cases where plume impaction occurs. Plume impaction is defined as concentrations measured or predicted to occur when the plume interacts with elevated terrain. Elevated terrain is defined as terrain that exceeds the height calculated by the GEP stack height formula.

3.2.6 ADDITIONAL IMPACT ANALYSIS

In addition to air quality impact analyses, federal and State of Florida PSD regulations require analyses of the impairment to visibility and the impacts on soils and vegetation that would occur as a result of the proposed source [40 CFR 52.21(o); Rule 62-212.400]. These analyses are to be conducted primarily for PSD Class I areas. Impacts as a result of general commercial, residential, industrial, and other growth associated with the source also must be addressed. These analyses are required for each pollutant emitted in significant amounts (Table 3-2).

3.3 NON-ATTAINMENT RULES

Based on the current non-attainment provisions, all major new facilities and modifications to existing major facilities located in a non-attainment area must undergo non-attainment review. A new major facility is required to undergo this review if the proposed pieces of equipment have the potential to emit 100 TPY or more of the non-attainment pollutant.

3.4 EMISSION STANDARDS

3.4.1 NEW SOURCE PERFORMANCE STANDARDS

The NSPS are a set of national emission standards that apply to specific categories of new sources. As stated in the CAA Amendments of 1977, these standards "shall reflect the

degree of emission limitation and the percentage reduction achievable through application of the best technological system of continuous emission reduction the Administrator determines has been adequately demonstrated."

3.4.2 FLORIDA RULES

FDEP emission standards apply to several emission units at SGCPC. The steam boilers are subject to FDEP's small boiler rule contained in Rule 62-296.405, F.A.C. This rule requires that BACT be applied for PM and SO₂ emissions. The citrus peel dryer and pellet coolers are subject to the process weight table regulation contained in Rule 62-296.320(4). This rule limits PM emissions based upon the process input weight rate. This rule also limits visible emissions from these sources to 20 percent opacity.

3.5 PSD APPLICABILITY FOR SGCPC

3.5.1 AREA CLASSIFICATION

The project site is located in Hendry County, which has been designated by EPA and FDEP as an attainment area for all criteria pollutants. Hendry County and surrounding counties are designated as PSD Class II areas for SO₂, PM(TSP), and NO₂. The nearest Class I area to the site is the Everglades National Park (ENP), located about 102 km (62 miles) south of the SGCPC facility site.

3.5.2 PSD REVIEW

Pollutant Applicability

As discussed in Sections 1.0 and 2.0, based upon the estimated future potential emissions for the SGCPC facility, the proposed extractors addition will trigger PSD new source review. As a result, PSD review is required for each pollutant whose emissions exceed the PSD significant emission rates (see Table 3-1). As shown in Table 3-3, the following pollutant increases exceed the PSD significant emission rates: PM, PM₁₀, SO₂, NO_x, CO and VOC.

BACT Review

The BACT review requirement is only applicable to the proposed new juice extractors, since no physical change or change in the method of operation will occur for the other

emission units at the facility. EPA's PSD regulations are codified at 40 CFR 52.21. This rule requires, among other things, that BACT be employed to control emissions from a proposed new source or modification. The EPA rules governing control technology review state:

"A major modification shall apply best available control technology for each pollutant subject to regulation under the Act for which it would result in a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit." (40 CFR 52.21 (j)(3)).

Therefore, BACT does not apply to an emissions unit at which there is no physical change or change in the method of operation.

Ambient Monitoring

Based on the estimated increase in emissions due to the proposed SGPC project, a PSD preconstruction ambient monitoring analysis is required for PM₁₀, SO₂, NO_x, VOC and CO. However, if the increase in impacts of a pollutant is less than the *de minimis* monitoring concentration, then an exemption from the preconstruction ambient monitoring requirement may be granted for that pollutant. In addition, if an acceptable ambient monitoring method for the pollutant has not been established by EPA, monitoring is not required.

Based on the modeling analysis results presented in Section 7.0, pre-construction ambient monitoring analysis for PM₁₀, SO₂, NO_x and CO may be exempted for this facility because the project's impact are predicted to be below the applicable *de minimis* monitoring concentration for these pollutants. A pre-construction ambient monitoring analysis is required for ozone, since the potential increase in VOC emissions is greater than 100 TPY. This analysis is presented in Section 4.0.

GEP Stack Height Analysis

The GEP stack height regulations allow any stack to be at least 65 m [213 feet (ft)] high. All of the stacks at the SGPCPC facility do not exceed the *de minimis* GEP stack height and will not be increased. As a result, the facility stacks do not exceed GEP stack height.

3.6 EMISSION STANDARDS

3.6.1 NEW SOURCE PERFORMANCE STANDARDS

Boiler Nos. 1, 2, and 3 are subject to 40 CFR 60, Subpart Dc, the federal NSPS for Small Industrial-Commercial-Institutional Steam Generating Units. According to the NSPS, the boilers may emit no more than 0.5 lb/MMBtu of SO₂, or as an alternative, must burn fuel oil with a maximum sulfur content of 0.5 percent. In addition, the boilers are subject to a 20 percent opacity limitation, except up to 6 minutes per hour, the opacity must not exceed 27 percent. The boilers all comply with this requirement.

The seven VOC storage tanks are subject to 40 CFR 60, Subpart Kb, the federal NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.

According to the NSPS, the tanks would be subject only to the following requirement of the NSPS:

The recordkeeping requirement specified in 40 CFR 60.116b(b), which states:

The owner or operator of each storage vessel as specified in 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m³ is subject to no provision of this subpart other than those required by this paragraph.

The tanks all comply with this requirement and no other federal NSPS apply to the SGPCPC facility.

3.6.2 FLORIDA RULES

The steam boilers are subject to FDEP's small boiler rule, contained in Rule 62-296.405, F.A.C., which requires that BACT be applied for PM and SO₂ emissions. Boiler Nos. 1

and 2 were issued BACT determinations under this rule in the initial air construction permits issued to the SGCPC facility in 1992 (refer to Attachment B). Although BACT analyses were submitted for Boiler No. 3 in 1997 (in support of a overall boiler fuel cap request), and for Boiler No. 4 in the air permit application, specific BACT determinations were not issued by the FDEP.

The citrus peel dryer and pellet coolers are subject to the process weight table regulation contained in Rule 62-296.320(4). This rule limits PM emissions based upon the process input weight rate. This rule also limits visible emissions from these sources to 20 percent opacity. The peel dryer and the pellet coolers comply with these limitations.

Table 3-1. National and State AAQS, Allowable PSD Increments, and Significant Impact Levels ($\mu\text{g}/\text{m}^3$)

Pollutant	Averaging Time	AAQS			PSD Increments		Significant Impact Levels ^d
		National Primary Standard	National Secondary Standard	State of Florida	Class I	Class II	
Particulate Matter ^a (PM ₁₀)	Annual Arithmetic Mean	50	50	50	4	17	1
	24-Hour Maximum	150 ^b	150 ^b	150 ^b	8	30	5
Sulfur Dioxide	Annual Arithmetic Mean	80	NA	60	2	20	1
	24-Hour Maximum	365 ^b	NA	260 ^b	5	91	5
	3-Hour Maximum	NA	1,300 ^b	1,300 ^b	25	512	25
Carbon Monoxide	8-Hour Maximum	10,000 ^b	10,000 ^b	10,000 ^b	NA	NA	500
	1-Hour Maximum	40,000 ^b	40,000 ^b	40,000 ^b	NA	NA	2,000
Nitrogen Dioxide	Annual Arithmetic Mean	100	100	100	2.5	25	1
Ozone ^a	1-Hour Maximum	235 ^c	235 ^c	235 ^c	NA	NA	NA
Lead	Calendar Quarter Arithmetic Mean	1.5	1.5	1.5	NA	NA	NA

Note: Particulate matter (PM₁₀) = particulate matter with aerodynamic diameter less than or equal to 10 micrometers.

NA = Not applicable, i.e., no standard exists.

^a On July 18, 1997, EPA promulgated revised AAQS for particulate matter and ozone. For particulate matter, PM_{2.5} standards were introduced with a 24-hour standard of 65 $\mu\text{g}/\text{m}^3$ (3-year average of 98th percentile) and an annual standard of 15 $\mu\text{g}/\text{m}^3$ (3-year average at community monitors). Implementation of these standards are many years away. The ozone standard was modified to be 0.08 ppm for 8-hour average; achieved when 3-year average of 99th percentile is 0.08 ppm or less. FDEP has not yet adopted these standards.

^b Short-term maximum concentrations are not to be exceeded more than once per year.

^c Achieved when the expected number of days per year with concentrations above the standard is fewer than 1.

^d Maximum concentrations.

Sources: Federal Register, Vol. 43, No. 118, June 19, 1978. 40 CFR 50. 40 CFR 52.21. Rule 62-204, F.A.C.

Table 3-2. PSD Significant Emission Rates and *De Minimis* Monitoring Concentrations

Pollutant	Regulated Under	Significant Emission Rate (TPY)	<i>De Minimis</i> Monitoring Concentration ($\mu\text{g}/\text{m}^3$)
Sulfur Dioxide	NAAQS, NSPS	40	13, 24-hour
Particulate Matter (PM_{10})	NAAQS	15	10, 24-hour
Nitrogen Oxides	NAAQS, NSPS	40	14, annual
Carbon Monoxide	NAAQS, NSPS	100	575, 8-hour
Volatile Organic Compounds (Ozone)	NAAQS, NSPS	40	100 TPY ^a
Lead	NAAQS	0.6	0.1, 3-month
Sulfuric Acid Mist	NSPS	7	NM
Total Fluorides	NSPS	3	0.25, 24-hour
Total Reduced Sulfur	NSPS	10	10, 1-hour
Reduced Sulfur Compounds	NSPS	10	10, 1-hour
Hydrogen Sulfide	NSPS	10	0.2, 1-hour
Asbestos	NESHAP	0.007	NM
Beryllium	NESHAP	0.0004	0.001, 24-hour
Mercury	NESHAP	0.1	0.25, 24-hour
Vinyl Chloride	NESHAP	1	15, 24-hour

Note: Ambient monitoring requirements for any pollutant may be exempted if the impact of the increase in emissions is below *de minimis* monitoring concentrations.

- NAAQS = National Ambient Air Quality Standards.
 NESHAP = National Emission Standards for Hazardous Air Pollutants.
 NM = No ambient measurement method.
 NSPS = New Source Performance Standards.
 PM_{10} = particulate matter with aerodynamic diameter less than or equal to 10 micrometers.
 PSD = prevention of significant deterioration.
 TPY = tons per year.
 TSP = total suspended particulate matter.
 $\mu\text{g m}^3$ = micrograms per cubic meter.

^a No *de minimis* concentration; an increase in VOC emissions of 100 TPY or more will require monitoring analysis for ozone.

Source: F.A.C., Rule 62-212.400, Tables 212.400-2 and 212.400-3.

Table 3-3. PSD Applicability for Proposed Extractors Addition, SGPCP

Pollutant	Actual	Future	Net Change in Emissions (TPY)	PSD	PSD Review Applies?
	1998-1999 Emissions (TPY)	Potential 2000-2001 Emissions (TPY)		Significant Emission Rate (TPY)	
PM	17.1	115.3	98.2	25	Yes
PM ₁₀	14.8	113.2	98.4	15	Yes
SO ₂	41.3	266.7	225.4	40	Yes
NO _x	25.1	102.3	77.2	40	Yes
CO	629	2,892	2,263	100	Yes
VOC	1,187	2,026	839	40	Yes

4.0 AMBIENT MONITORING ANALYSIS

4.1 INTRODUCTION

In accordance with requirements of 40 CFR 52.21(m) and Rule 62-212.400(5)(f), F.A.C., any application for a PSD permit must contain an analysis of continuous ambient air quality data in the area affected by the proposed major stationary facility or major modification. For a new major facility, the affected pollutants are those that the facility potentially would emit in significant amounts. For a major modification, the pollutants are those for which the net emissions increase exceeds the significant emission rate.

Ambient air monitoring for a period of up to 1 year is generally appropriate to satisfy the PSD monitoring requirements. A minimum of 4 months of data is required. Existing data from the vicinity of the proposed source may be used if the data meet certain quality assurance requirements; otherwise, additional data may need to be gathered. Guidance in designing a PSD monitoring network is provided in EPA's Ambient Monitoring Guidelines for Prevention of Significant Deterioration (EPA, 1987).

An exemption from the preconstruction ambient monitoring requirements is also available if certain criteria are met. If the predicted increase in ambient concentrations due to the proposed modification is less than the specified *de minimis* concentration for a particulate pollutant, the modification can be exempted from the preconstruction air monitoring requirements for that pollutant.

As described in Section 3.5.2, PM₁₀, SO₂, NO_x, and CO can be exempted from the preconstruction ambient monitoring requirements. However, a preconstruction air monitoring analysis is required for ozone. This analysis is presented in the following section. In addition, existing ambient air quality data for the SGPC vicinity and for Everglades National Park Class I area, for all pollutants requiring PSD review, is presented to support the modeling analysis in Section 7.0 and the AQRV analysis presented in Section 8.0.

4.2 VICINITY OF SGCPC

As shown in Table 7-1, the proposed project's maximum impacts are below the *de minimis* monitoring concentrations (Table 3-2) for SO₂, PM₁₀, NO_x, and CO. Therefore, the proposed project is not subject to preconstruction air monitoring. Background concentrations are necessary to determine total ambient air quality impacts to demonstrate compliance with AAQS. "Background concentrations" are defined as concentrations due to sources other than those specifically included in the modeling analysis. For all pollutants, background would include other point sources not included in the modeling (i.e., faraway sources or small sources), fugitive emission sources, and natural background sources.

4.2.1 PM₁₀ AMBIENT BACKGROUND CONCENTRATIONS

Presented in Table 4-1 is a summary of existing ambient PM₁₀ data for monitors located in the vicinity of the SGCPC facility. Data are presented for the last 2 years of record, 1997 to 1998. As shown, two PM₁₀ monitors were operational in the vicinity of Clewiston during this period. These stations, located in Clewiston, operated in 1997 but were shutdown in 1998. Several stations were operated in Belle Glade during 1997. Only one station operated in Belle Glade during 1998.

The monitors show that ambient PM₁₀ concentrations were well below the ambient air quality standards of 150 µg/m³, maximum 24-hour average, and 50 µg/m³, annual average at all sites. Monitors in Belle Glade appear to exhibit higher air quality levels than those in Clewiston.

For purposes of an ambient PM₁₀ background concentration for use in the modeling analysis, the PM₁₀ concentrations of 38 µg/m³, 2nd high 24-hour average; and 23 µg/m³, annual average, recorded at the Clewiston, 115 S. Lopez Street, monitor during 1997 were selected. These concentrations were utilized for the 24-hour and annual average background PM₁₀ concentrations in the air quality impact analysis, although these monitors are impacted by the existing U.S. Sugar Clewiston facility, which is included explicitly in the modeling analysis. All other major point sources of PM within 50 km are also included explicitly in the modeling analysis. Therefore, this monitor would be

influenced significantly by point sources and would represent a conservative estimate of actual background concentrations.

4.2.2 SO₂ AMBIENT BACKGROUND CONCENTRATIONS

Presented in Table 4-2 is a summary of existing continuous ambient SO₂ data for monitors located in the vicinity of SGPC facility. Data are presented for the last two years of record, 1997 to 1998. As shown, no SO₂ monitors were operational in the vicinity of Clewiston during this period. The nearest SO₂ monitoring stations west located in South Bay. This station, located in South Bay at 300 North U.S. 27, operated in 1997 but was shutdown in 1998. One station also operated in Riviera Beach during 1997 and 1998, but this station is more than 50 km from SGPC.

The monitor at South Bay shows that ambient SO₂ concentrations were well below the ambient air quality standards of: 1,300 $\mu\text{g}/\text{m}^3$, maximum 3-hour average; 260 $\mu\text{g}/\text{m}^3$, maximum 24-hour average; and 60 $\mu\text{g}/\text{m}^3$, annual average. The monitor in Riviera Beach is not considered to be representative of the Clewiston area due to the distance this monitor is from Clewiston.

For purposes of an ambient SO₂ background concentration for use in the modeling analysis, the SO₂ concentrations of 47 $\mu\text{g}/\text{m}^3$, 2nd high 3-hour average; 13 $\mu\text{g}/\text{m}^3$, 2nd high 24-hour average; and 5 $\mu\text{g}/\text{m}^3$, annual average; recorded at the South Bay monitor during 1997 were selected. These concentrations were utilized for the 3-hour, 24-hour, and annual average background SO₂ concentrations in the air quality impact analysis since this monitor is impacted by the existing major sources in Belle Glade and South Bay (i.e., sugar mills), which are included explicitly in the modeling analysis. All other major point sources of SO₂ are also explicitly included in the modeling analysis. Therefore, this monitor would be influenced by point sources and would represent a conservative estimate of actual background concentrations.

4.2.3 CO AMBIENT BACKGROUND CONCENTRATIONS

Presented in Table 4-3 is a summary of existing continuous ambient CO data for monitors located in the vicinity of SGPC. Data are presented for the last 2 years of

record, 1997 to 1998. As shown, no CO monitors were operational in the vicinity of Clewiston during this period. The nearest CO monitoring stations were located in West Palm Beach.

The CO monitors show that ambient CO concentrations were well below the ambient air quality standards of: 35 ppm (40,000 $\mu\text{g}/\text{m}^3$), maximum 1-hour average; and 9 ppm (10,000 $\mu\text{g}/\text{m}^3$) maximum 8-hour average. The monitor in West Palm Beach is not considered to be representative of the SGPC area due to the distance this monitor is from SGPC, but is the closest monitoring station.

For purposes of an ambient CO background concentration for use in the modeling analysis, the second highest 1-hour CO concentration of 5 ppm (5,555 $\mu\text{g}/\text{m}^3$) and the second highest 8-hour concentration of 3 ppm (3,333 $\mu\text{g}/\text{m}^3$), recorded at the West Palm Beach monitor during 1997 was selected. These concentrations are very conservative since this monitor is impacted by significant mobile sources.

4.2.4 AMBIENT OZONE CONCENTRATIONS

Presented in Table 4-4 is a summary of existing continuous ambient ozone data for monitors located in the vicinity of the SGPC facility. Data are presented for the last 2 years of record, 1997 to 1998. As shown, no ozone monitors were operational in the vicinity of Clewiston during this period. The nearest ozone monitoring stations were located in West Palm Beach.

The ozone monitors show that ambient ozone concentrations were below the ambient air quality standards of: 0.12 ppm (235 $\mu\text{g}/\text{m}^3$), maximum 1-hour average allowed to be exceeded on average one day per year; and 0.08 ppm (157 $\mu\text{g}/\text{m}^3$), average annual fourth highest 8-hour average. The monitor in West Palm Beach is considered to be conservative for the SGPC site due to the significant number of mobile sources in the West Palm Beach area compared to the SGPC site.

4.3 EVERGLADES NATIONAL PARK CLASS I AREA

Presented in Table 4-5 is a summary of existing ambient PM/PM₁₀, SO₂ and NO₂ monitoring data for monitors located in the vicinity of the Everglades National Park Class I area. One PM₁₀ monitor and one SO₂ monitor were located directly in the Everglades National Park in 1997 and 1998. The nearest NO₂ data is from a site located in downtown Miami.

The monitoring data show that ambient PM₁₀ concentrations were well below the ambient air quality standards of 150 $\mu\text{g}/\text{m}^3$, maximum 24-hour average, and 50 $\mu\text{g}/\text{m}^3$, annual average, and ambient SO₂ concentrations were extremely low and are representative of natural background concentrations.

Table 4-1. Summary of PM₁₀ Ambient Monitoring Data Collected Near Clewiston

Year	County	Station ID	Monitor Location	Number of Observations	Concentration ($\mu\text{g}/\text{m}^3$)		
					Maximum 24-Hour	2nd High 24-Hour	Annual Average
1997	Hendry	0660-002-J02	Clewiston - 115 S. Lopez Street	55	43	38	23
	Hendry	1720-002-J02	Clewiston - Delta Ranch SR 832	51	60	39	23
	Palm Beach	0240-008-G01	Belle Glade - 38754 SR 80	61	45	39	20
	Palm Beach	0240-004-J02	Belle Glade - SR 717, Municipal Golf	57	43	39	20
	Palm Beach	0240-006-J02	Belle Glade - 273 SE Avenue E	60	47	44	22
	Palm Beach	3420-010-J02	Belle Glade - PO Box 484	55	81	75	26
	Palm Beach	3420-011-J02	Belle Glade - SR 80	61	36	36	21
1998	Palm Beach	12-099-0008	Belle Glade - 38754 SR 80	50	82	59	27

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

Table 4-2. Summary of SO₂ Monitoring Data Collected Near Clewiston

Year	County	Station ID	Monitor Location	Number of Observations	Concentration (µg/m ³)				Annual Average
					Maximum 3-Hour	2nd High 3-Hour	Maximum 24-Hour	2nd High 24-Hour	
1997	Palm Beach	4150-001-J02	South Bay- 300 North US 27	8,486	55	47	19	13	5
	Palm Beach	3840-004-G02	Riviera Beach- 1050 15th Street	8,274	165	154	50	37	4
1998	Palm Beach	12-099-3004	Riviera Beach- 1050 15th Street	8,299	177 (0.068 ppm)	31 (0.012 ppm)	24 (0.009 ppm)	10 (0.004 ppm)	3 (0.001 ppm)

µg/m³ = micrograms per cubic meter

Table 4-3. Summary of Carbon Monoxide Ambient Monitoring Data Near Clewiston

Year	County	Station ID	Monitor Location	Number of Observations	Concentration (ppm)			
					Maximum 1-Hour	2nd-High 1-Hour	Maximum 8-Hour	2nd High 8-Hour
1997	Palm Beach	4760-004-G01	West Palm Beach - 3730 Belvedere Road	8,232	11	10	7	3
	Palm Beach	4760-005-G01	West Palm Beach - 4356 Okeechobee Blvd.	3,547	7	7	5	3
	Palm Beach	4760-006-G01	West Palm Beach - 50 South Military Trail	843	6	5	4	3
1998	Palm Beach	12-099-1004	West Palm Beach - 3700 Belvedere Road	8,280	6.0	5.6	2.7	2.5
	Palm Beach	12-099-1006	West Palm Beach - 50 South Military Trail	8,476	5.4	5.3	3.0	3.0

Note: ppm = parts per million.

Table 4-4. Summary of Continuous Ozone Ambient Monitoring Data Collected Near Clewiston

Year	County	Station ID	Monitor Location	Number of Observations	Concentration (ppm)		
					Maximum 1-Hour	2nd High 1-Hour	3rd High 1-Hour
1997	Palm Beach	3420-007-G01	Royal Palm Beach Royal Palm Beach Storage	8,005	0.087	0.078	0.074
1998	Palm Beach	12-099-0007	West Palm Beach- 10999 Okeechobee Blvd.	8,424	0.094	0.092	0.087

ppm = parts per million

Table 4-5. Summary of Sulfur Dioxide, PM₁₀, and NO_x Monitoring Data Collected in or Near the Everglades National Park

Year	County	Station ID	Monitor Location	Number of Observations	Concentration (µg/m ³)		
					Maximum 24-Hour	2nd High 24-Hour	Annual Average
<u>SO₂ Monitoring Data</u>							
1997	Dade	National Park Service	Within Everglades National Park	94	0.52	0.18	0.044
1998	Dade	National Park Service	Within Everglades National Park	66	0.72	0.68	0.13
<u>PM₁₀ Monitoring Data</u>							
1990	Dade	National Park Service	Within Everglades National Park	89	79	44	20
1991	Dade	National Park Service	Within Everglades National Park	53	38	37	18
<u>NO_x Monitoring Data</u>							
1997	Dade	2700-002-G01	Miami- 864 NW 3rd Street	8,477	NA	NA	31
	Dade	0860-027-G01	Miami- Rosensteil School	7,854	NA	NA	13
1998	Dade	12-025-4002	Miami- 864 NW 3rd Street	8,477	NA	NA	28 (0.015 ppm)
	Dade	12-025-0027	Miami- Rosensteil School	7,019	NA	NA	11 (0.006 ppm)

Source: Improve, NPS.

5.0 BACT ANALYSIS

As discussed in Section 3.0, BACT analysis is required for the SGPC for the following sources: the three new juice extractors. The pollutants requiring BACT analysis are PM, PM₁₀, SO₂, VOC, CO, and NO_x. The BACT analysis is presented in this section.

5.1 REQUIREMENTS

The control technology review requirements of the federal and state PSD regulations require that all applicable federal and state emission-limiting standards be met, and that BACT be applied to control emissions from the source. The BACT requirements are applicable to all regulated pollutants for which the increase in emissions from the facility or modification exceeds the significant emission rate.

BACT is defined in 40 CFR 52.21 as:

An emissions limitation, including a visible emission standard, based on the maximum degree of reduction of each pollutant emitted which the department, on a case by case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of such pollutant. If the Department determines that technological or economic limitations on the application of measurement methodology to a particular part of a source or facility would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice, or operation.

The requirements for BACT were promulgated within the framework of PSD in the 1977 amendments of the CAA [Public Law 95-95; Part C, Section 165(a)(4)]. The primary purpose of BACT is to optimize consumption of PSD air quality increments and thereby enlarge the potential for future economic growth without significantly degrading air quality (EPA, 1978; 1980). Guidelines for the evaluation of BACT can be found in EPA's Guidelines for Determining Best Available Control Technology (BACT) (EPA, 1978) and in the PSD Workshop Manual (EPA, 1980). These guidelines were promulgated by EPA to provide a consistent approach to BACT and to ensure that the impacts of alternative

emission control systems are measured by the same set of parameters. In addition, through implementation of these guidelines, BACT in one area may not be identical to BACT in another area. According to EPA (1980):

BACT analyses for the same types of emissions unit and the same pollutants in different locations or situations may determine that different control strategies should be applied to the different sites, depending on site-specific factors. Therefore, BACT analyses must be conducted on a case-by-case basis.

The BACT requirements are intended to ensure that the control systems incorporated in the design of a proposed facility reflect the latest in control technologies used in a particular industry and take into consideration existing and future air quality in the vicinity of the proposed facility. BACT must, as a minimum, demonstrate compliance with NSPS for a source (if applicable). An evaluation of the air pollution control techniques and systems, including a cost-benefit analysis of alternative control technologies capable of achieving a higher degree of emission reduction than the proposed control technology, is required. The cost-benefit analysis requires the documentation of the materials, energy, and economic penalties associated with the proposed and alternative control systems, as well as the environmental benefits derived from these systems. A decision on BACT is to be based on sound judgment, balancing environmental benefits with energy, economic, and other impacts (EPA, 1978).

Under federal EPA PSD rules, control technology review requirements are clarified for major modifications to existing major facilities. Title 40, CFR 52.21(j)(3) reads as follows:

A major modification shall apply best available control technology for each pollutant subject to regulation under the ACT for which it would result in a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit.

Thus, BACT applies to only those emissions units undergoing a physical change or a change in the method of operation as a result of the modification. A physical change or change in the method of operation does not include an increase in the hours of operation of a unit, or an increase in the production rate of a unit, unless such increase would be prohibited under a federally enforceable permit condition which was established after January 6, 1975 [40 CFR 52.21(b)(2)(iii)(f)]. Florida's PSD regulations (Rule 62-212.400,

F.A.C.), although worded differently than the EPA regulations, were intended to be applied in the same manner as the EPA regulations.

The following section presents the BACT analysis.

5.2 NEW JUICE EXTRACTORS

The new juice extractors process raw citrus fruit by removing the peel and extracting the citrus juice within the fruit. The juice and peel are then sent for further processing. The only air pollutant potentially released by the juice extractors is VOC. The magnitude of VOC released, although not quantifiable, is extremely small. The mechanism of juice removal and subsequent transport allows little opportunity for escape to the atmosphere. Limited measurement of VOC emissions from the SGCPC juice extractors building confirms this.

The extractor building at SGCPC has a number of roof vents and floor vents. It would be extremely costly to control the small emissions which might emanate through these vents. Therefore, VOC controls on the extractor building were not considered further.

As discussed in the regulatory requirements section (Section 5.1), BACT review does not apply to any emissions unit which is not undergoing a physical change or a change in the method of operation. Although the existing steam boilers, peel dryer and pellet coolers may experience an increase in operating hours and/or production rates as a result of the extractors addition, with an associated emissions increase, their permitted capacities are sufficient. These emissions units will not undergo a physical change or a change in the method of operation, as defined under the PSD regulations. As a result, BACT does not apply to these emissions units.

6.0 AIR QUALITY IMPACT ANALYSIS

6.1 AIR MODELING ANALYSIS APPROACH

An air quality impact analysis of the SGPC facility was conducted for four pollutants for which AAQS have been set: SO₂, NO₂, PM₁₀, and CO. The air quality modeling analysis was performed using the Industrial Source Complex Short-Term (ISCST3) model, Version 98356, currently recommended for regulatory applications, to assess maximum ground-level impacts due to the SGPC facility and other sources in the area. The analysis followed EPA and FDEP modeling guidelines for assessing compliance with the AAQS and PSD increments.

The impact analysis used screening and refinement phases to determine the maximum pollutant impacts associated with the SGPC facility. The difference between the two modeling phases is the density of the receptor grid spacing used when predicting concentrations. Concentrations are predicted for the screening phase using a coarse (i.e., large spacing) receptor grid and a 5-year meteorological data record. In this analysis, the receptor grid consisted of a polar receptor grid with a 10-degree angular spacing between receptors. In order to assure receptor grid spacing of less than 100 m, 2-degree angular spacing between receptors are used for property boundary areas that exceed 575 m from the modeling origin.

Refinements of the maximum predicted concentrations from the screening phase are typically performed in the vicinity of the receptors of the screening receptor grid at which the highest predicted concentrations occurred over the 5-year period. Generally, if maximum concentrations predicted in another year are within 10 percent of the overall maximum concentration predicted for the 5-year period, then the other concentrations are refined as well. Modeling refinements are performed to determine maximum concentrations with a receptor grid spacing of 100 m or less.

The domain of a refined receptor grid will generally extend to all adjacent screening receptors surrounding a particular screening grid receptor. The air dispersion model is then executed with the refined grid for the entire year of meteorology during which the

maximum concentration in the screening phase occurred. This approach is used to ensure that a valid maximum concentration is obtained.

Because the SGCPC facility is located about 102 km (62 miles) north of the Everglades National Park (ENP) PSD Class I area, an increment analysis was conducted at the ENP.

A more detailed description of the model, along with the emission inventory, meteorological data, and screening receptor grids, is presented in the following sections.

6.2 SIGNIFICANT IMPACT ANALYSIS

6.2.1 SITE VICINITY

A significant impact analysis is performed for all criteria pollutants that are emitted in amounts greater than the applicable PSD significant emission rates. For each pollutant, a significant impact analysis is performed to determine a project's maximum air quality impact and the distance at which the project's impacts are below significant impact levels (SIL). This distance defines the significant impact area (i.e., distance from the source where impacts due to project emissions fall below SIL). If the project's maximum impacts are less than the SIL, no additional modeling with other sources is needed and the impact analysis is complete. However, if the project's impacts are predicted to be greater than the SIL for a particular pollutant, then additional, more detailed modeling analyses are required for that pollutant. The additional analyses include AAQS and PSD increment analyses. Both of these detailed analyses require that the cumulative air quality impacts from other facilities that are in the vicinity of the proposed project's plant be addressed in the impact evaluation. A more detailed description of these analyses is provided in the following sections.

6.2.2 PSD CLASS I AREAS

If the project is within 150 km of a PSD Class I area, then a significant impact analysis is also performed at the PSD Class I area. Currently, the EPA has proposed SIL for PSD Class I areas. If the project's impacts are above the SIL, then a more detailed air modeling analysis is performed with PSD increment consuming and expanding background facilities to determine increment consumption at the PSD Class I area.

Because the SGPC facility is located approximately 98.5 km from the Everglades National Park (ENP), a PSD Class I area, a significant impact analysis was conducted at the ENP. Current FDEP policies stipulate that the highest annual average and highest short-term (i.e., 24 hours or less) concentrations are to be compared to the applicable SIL.

6.3 AAQS AND PSD CLASS II INCREMENT ANALYSES

In general, when 5 years of meteorological data are used, the highest annual and the highest, second-highest (H2H) short-term concentrations are to be compared to the applicable AAQS and allowable PSD Class II increments. The H2H is calculated for a receptor field by:

1. Eliminating the highest concentration predicted at each receptor,
2. Identifying the second-highest concentration at each receptor, and
3. Selecting the highest concentration among these second-highest concentrations.

This approach is consistent with most air quality standards and all allowable PSD increments, which permit a short-term average concentration to be exceeded once per year at each receptor.

For the AAQS analysis, the future emissions of the SGPC facility are modeled together with other emission sources. Additionally, a non-modeled background concentration is added to the maximum predicted air quality to determine a total air quality concentration. The maximum annual and H2H short-term total concentrations are compared to the AAQS.

For the PSD Class II increment analysis, the PSD increment consuming sources at the SGPC facility site are modeled with other PSD consuming or expanding sources. Since the SGPC facility was constructed in 1994, after the PM_{10}/SO_2 and NO_x PSD baseline dates (January 1, 1985 and March 8, 1988, respectively), the entire facility is increment consuming. The maximum annual and H2H short-term PSD increment are compared to the allowable PSD Class II increments.

6.4 PSD CLASS I INCREMENT ANALYSIS

For PM₁₀, SO₂ and NO₂, which have established PSD Class I allowable increments, a detailed PSD increment analysis was not performed because the Class I analysis showed these pollutant impacts were not significant.

6.5 MODEL SELECTION

The ISCST3 dispersion model (Version 00101) was used to evaluate all pollutant impacts. This model is currently available on the EPA's Internet web site, Support Center for Regulatory Air Models (SCRAM), within the Technical Transfer Network (TTN). A listing of ISCST3 model features is presented in Table 6-1. The ISCST3 model is designed to calculate hourly concentrations based on hourly meteorological data (i.e., wind direction, wind speed, atmospheric stability, ambient temperature, and mixing heights). The ISCST3 model is applicable to sources located in either flat or rolling terrain where terrain heights do not exceed stack heights. These areas are referred to as simple terrain. The model can also be applied in areas where the terrain exceeds the stack heights. These areas are referred to as complex terrain.

Since the terrain surrounding the SGPC facility is flat, the modeling analysis assumed that all receptors were at the base elevation of the facility (i.e., flat terrain assumption in ISCST3).

In this analysis, the EPA regulatory default options were used to predict all maximum impacts. The ISCST3 model can run in the rural or urban land use mode, which affects stability dispersion coefficients, wind speed profiles, and mixing heights. Land use can be characterized based on a scheme recommended by EPA (Auer, 1978). If more than 50 percent of the land use within a 3-km radius circle around a project is classified as industrial or commercial, or high-density residential, then the urban option should be selected. Otherwise, the rural option is appropriate. Based on reviews of aerial and U.S. Geological Survey (USGS) topographical maps and a site visit, the land use within a 3-km (1.9-mile) radius of the SGPC facility site is considered to be rural (i.e., very little heavy industrial, light-moderate industrial, commercial, or compact residential land use categories). Therefore, the rural mode was used in the air dispersion model to predict

impacts from the SGCPG facility and other emission sources considered in the modeling analysis.

The ISCST3 model was used to predict maximum pollutant concentrations for averaging the annual and 24-hour, 8-hour, 3-hour, and 1-hour averaging periods. The predicted concentrations were then compared to applicable significant impact levels, monitoring *de minimis* levels, allowable PSD increments, and the AAQS.

For predicting maximum impacts at the Everglades National Park (ENP), a PSD Class I area, the California Puff (CALPUFF) model was used. CALPUFF, Version 5.4 (07/00), is a Lagrangian Puff model that is recommended by FDEP and EPA for predicting the pollutant impacts at receptor distances beyond 50 km. For this project, CALPUFF was used in a screening mode using a circle of receptors spaced at 1 degree intervals and at a distance of 98.5 km from the facility. This represents the minimum distance between SGCPG and the ENP PSD Class I area.

6.6 METEOROLOGICAL DATA

Meteorological data used in the ISCST3 model to determine air quality impacts consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) offices located in Fort Myers and Ruskin, respectively. Concentrations were predicted using 5 years of hourly meteorological data from 1987 through 1991. The NWS office in Fort Myers and Ruskin are the closest primary weather stations to the study area considered to have meteorological data representative of the project site. The Fort Myers and Ruskin stations meteorological data have been used for previous air modeling studies for the SGCPG facility.

The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling height. The wind speed, cloud cover, and cloud ceiling values were used in the ISCST3 meteorological preprocessor program to determine atmospheric stability using the Turner stability scheme. Based on the temperature measurements at morning and afternoon, mixing heights were calculated from the radiosonde data at Fort

Myers using the Holzworth approach (Holzworth, 1972). Hourly mixing heights were derived from the morning and afternoon mixing heights using the interpolation method developed by EPA (Holzworth, 1972). The hourly surface data and mixing heights were used to develop a sequential, hourly meteorological data set (i.e., wind direction, wind speed, temperature, stability, and mixing heights). Because the observed hourly wind directions at the NWS stations are classified into one of thirty-six 10-degree sectors, the wind directions were randomized within each sector to account for the expected variability in air flow. These calculations were performed using the EPA RAMMET meteorological preprocessor program.

6.7 EMISSION INVENTORY

6.7.1 SGCPC FACILITY

Current and future short-term and annual emissions used in the modeling for SGCPC are presented in Table 6-2. The current emissions are representative of current actual emissions, while future emissions are representative of future maximum emissions. Since the SGCPC facility was constructed in 1994, the entire facility consumes PSD increment. Stack parameters and source locations for the current and future operating conditions are presented in Table 2-7. It is noted that SGCPC has recently increased the stack diameter of the peel dryer/waste heat evaporator (WHE) from 46 inches to a new diameter of 68 inches (5.7 ft). The intent is to improve operation of the WHE and relieve back-pressure on the peel dryer.

6.7.2 OTHER EMISSION SOURCES

The emission inventories for other non-SGCPC facilities were developed mainly from databases from previous air modeling studies performed by Golder Associates for SGCPC, from the recent U.S. Sugar Clewiston Boiler No. 4 application, and from air permit data. For the AAQS and PSD Class II increment analysis, all other major sources located within 50 km of the significant impact area were included, as well as large emission sources located beyond that distance.

Sulfur Dioxide

A summary of all SO₂ emitting facilities located within 50 km of the significant impact area (2 km for SO₂), associated locations with respect to the SGPC facility, and associated SO₂ emissions, is provided in Table 6-3. Using the North Carolina Screening Method, sources to be included in the AAQS and PSD Class II increment air modeling analyses were identified. Emissions from Osceola Farms and Florida Power & Light's Fort Myers and Martin power plants were also included in this analysis. These sources are outside the significant impact area of the project, but are large sources which could affect maximum impacts. The individual source emissions, stack, and operating parameters for the AAQS and PSD Class II modeling analyses were developed and are presented in Table 6-4.

The facilities considered in the PSD Class I increment analysis are also presented in Table 6-4. All PSD increment consuming or expanding sources within these facilities are included in the analysis.

Each source listed in Table 6-4 includes a description of the source, the ID name of the source used in the air modeling analysis, and whether the source consumes or expands PSD increment. Facilities with PSD-affecting sources may have PSD baseline sources. PSD baseline source emissions and stack configurations no longer exist but were in effect during the SO₂ PSD baseline period of 1974-75. These sources expand PSD increment and are represented in the PSD increment air modeling analyses as negative emission sources.

Particulate Matter

A summary of all PM₁₀ emitting facilities located within 50 km of the significant impact area of 3.5 km, their locations with respect to the SGPC facility, and their PM emissions are provided in Table 6-5. Using the North Carolina Screening Method, sources were identified to be included in the AAQS and PSD Class II increment air modeling analysis. Also, emissions from Florida Power & Light's Fort Myers and Martin power plants were included in this analysis. These sources are outside the significant impact area of the project, but are large sources which could affect maximum impacts. The individual

source emissions, stack, and operating parameters for the AAQS and PSD Class II modeling analyses were developed and are presented in Table 6-6. A PSD Class I increment modeling analysis is not required for PM_{10} .

Each source listed in Table 6-6 includes a description of the source, the ID name of the source used in the air modeling analysis, and whether the source consumes or expands PSD increment. Facilities with PSD-affecting sources may have PSD baseline sources. PSD baseline source emissions and stack configurations no longer exist but were in effect during the PM_{10} PSD baseline period of 1974-75. These sources expand PSD increment and are represented in the PSD increment air modeling analyses as negative emission sources.

Carbon Monoxide

A summary of all CO emitting facilities located within 50 km of the significant impact area of 2 km, their locations with respect to the SGPC facility, and their CO emissions are provided in Table 6-7. Using the North Carolina Screening Method, sources to be included in the AAQS and PSD Class II increment air modeling analysis were identified. Emissions from Florida Power & Light's Fort Myers and Martin power plants were included in this analysis as were emissions from Osceola Farms and Atlantic Sugar Association. These sources are outside the significant impact area of the project, but are large sources which could affect maximum impacts. The individual source emissions, stack, and operating parameters for the AAQS modeling analysis were developed and are presented in Table 6-8. A PSD Class I increment modeling analysis is not required for CO. Each source listed in Table 6-8 includes a description of the source, the ID name of the source used in the air modeling analysis.

6.8 BUILDING DOWNWASH EFFECTS FOR SGPC FACILITY

Based on the building dimensions associated with buildings and structures at the facility, all stacks at the SGPC facility will comply with the good engineering practice (GEP) stack height regulations. However, these stacks are less than GEP height. Therefore, the potential for building downwash to occur was considered in the air modeling analysis for these stacks.

Generally, a stack is considered to be within the influence of a building if it is within the lesser of 5 times L , where L is the lesser dimension of the building height or projected width. The ISCST3 model uses two procedures to address the effects of building downwash. For both methods, the direction-specific building dimensions are input for H_b and l_b for 36 radial directions, with each direction representing a 10-degree sector. The H_b is the building height and l_b is the lesser of the building height or projected width. For short stacks (i.e., physical stack height is less than $H_b + 0.5 l_b$), the Schulman and Scire (1980) method is used. The features of the Schulman and Scire method are as follows:

1. Reduced plume rise as a result of initial plume dilution,
2. Enhanced plume spread as a linear function of the effective plume height, and
3. Specification of building dimensions as a function of wind direction.

For cases where the physical stack height is greater than $H_b + 0.5 l_b$, but less than GEP, the Huber-Snyder (1976) method is used. Both downwash algorithms affect stacks that are within the influence of a building, without regard for the actual distance the stack or stack plume is from the building during any given moment.

The building dimensions considered in the air modeling analysis for the SGPC facility are presented in Table 6-9. The location of the buildings and stacks can be found on the site plot plan (Figure 6-1). At the SGPC facility, several stacks are influenced by one or more buildings. For the modeling analysis, direction-specific building dimensions are input for H_b and l_b for 36 radial directions, with each direction representing a 10-degree sector. All direction-specific building parameters were calculated with the Building Profile Input Program (BPIP), Version 95086. The BPIP program was used to generate building data for the ISCST3 model input. A detailed listing of direction-specific building data used in the air modeling analysis is provided in Attachment C.

6.8 RECEPTOR LOCATIONS

For predicting maximum concentrations in the vicinity of the SGPC facility, an array of discrete polar receptors were used. The number of discrete receptors was 166; 64 of these receptors are located along the property line of SGPC facility. Property line receptors are all 100 m or less between receptors. The other discrete receptors are located in four concentric rings outside the property boundary at 300, 400, 500, and 600 meters. A summary of the boundary receptors at SGPC facility is presented in Table 6-10.

Modeling refinements were performed, as needed, by employing a polar receptor grid with a maximum spacing of 100 m along each radial and an angular spacing between radials of 1 or 2 degrees. At a distance of less than 575 m, the angular distance between receptors is 100 m or less and additional refinements may not be performed. At distances of 600 m and beyond, modeling refinements are performed by employing an angular spacing between radials of 1 or 2 degrees and a spacing interval along radials of 100 m.

Pollutant concentrations were also predicted at 51 receptors located along the boundaries of the ENP PSD Class I Area. A listing of the 51 Class I receptors is presented in Table 6-11. Due to the large distance from the SGPC facility to the ENP, additional receptor refinements were not performed for these areas.

6.9 BACKGROUND CONCENTRATIONS

Total air quality impacts were predicted for the AAQS analysis by adding the maximum annual and highest, second-highest short-term concentrations due to all modeled sources to estimated background concentrations. Background concentrations are concentrations due to sources not explicitly included in the modeling analysis. These concentrations consist of two components:

- Impacts due to other non-modeled emission sources (i.e., point sources not explicitly included in the modeling inventory), and
- Natural and fugitive emission sources.

The non-modeled background concentrations were obtained from air quality monitoring data, as described in Section 4.0, and are as follows:

Pollutant	Averaging Period	Background Concentration ($\mu\text{g}/\text{m}^3$)
PM ₁₀	24-hour	38
	Annual	23
SO ₂	3-hour	47
	24-hour	13
CO	Annual	5
	1-hour	5,555
	8-hour	3,333

Table 6-1. Major Features of the ISCST3 Model

ISCST3 Model Features

- Polar or Cartesian coordinate systems for receptor locations
- Rural or one of three urban options which affect wind speed profile exponent, dispersion rates, and mixing height calculations
- Plume rise due to momentum and buoyancy as a function of downwind distance for stack emissions (Briggs, 1969, 1971, 1972, and 1975; Bowers, et al., 1979).
- Procedures suggested by Huber and Snyder (1976); Huber (1977); and Schulman and Scire (1980) for evaluating building wake effects
- Procedures suggested by Briggs (1974) for evaluating stack-tip downwash
- Separation of multiple emission sources
- Consideration of the effects of gravitational settling and dry deposition on ambient particulate concentrations
- Capability of simulating point, line, volume, area, and open pit sources
- Capability to calculate dry and wet deposition, including both gaseous and particulate precipitation scavenging for wet deposition
- Variation of wind speed with height (wind speed-profile exponent law)
- Concentration estimates for 1-hour to annual average times
- Terrain-adjustment procedures for elevated terrain including a terrain truncation algorithm for ISCST3; a built-in algorithm for predicting concentrations in complex terrain
- Consideration of time-dependent exponential decay of pollutants
- The method of Pasquill (1976) to account for buoyancy-induced dispersion
- A regulatory default option to set various model options and parameters to EPA recommended values (see text for regulatory options used)
- Procedure for calm-wind processing including setting wind speeds less than 1 m/s to 1 m/s.

Note: ISCST3 = Industrial Source Complex Short-Term.

Source: EPA, 1998.

Two more months
return summary

Table 6-2. Short-term and Annual Emissions used in Modeling of SGPCPC

	Short-term Emissions					Long Term Emissions ^a			
	Current		Future			Current		Future	
	lb/hr	g/s	lb/hr	g/s		TPY	g/s	TPY	g/s
	Boilers					Boilers			
PM ₁₀	0.79	0.10	0.79 ^b	0.10	PM ₁₀	0.71 ^e	0.02	2.04 ^b	0.06
SO ₂	54.64	6.88	54.64 ^b	6.88	SO ₂	20.79 ^e	0.60	140.69 ^b	4.04
NO _x	15.81	1.99	15.81 ^b	1.99	NO _x	14.28 ^e	0.41	40.78 ^b	1.17
CO	3.95	0.50	3.95 ^b	0.50	CO	3.57 ^e	0.10	10.20 ^b	0.29
	Peel Dryer/WHE					Peel Dryer/WHE			
PM ₁₀	11.30 ^f	1.42	18.50 ^c	2.35	PM ₁₀	13.73 ^e	0.39	41.0	1.18
SO ₂	19.62 ^f	2.47	42.00 ^c	5.29	SO ₂	20.49 ^e	0.59	126.0	3.62
NO _x	10.40 ^f	1.31	27.70 ^c	3.49	NO _x	10.87	0.31	61.5	1.77
CO	339.00 ^f	42.71	926.00 ^c	116.68	CO	625.8	17.99	1970	56.64
	Pellet Coolers					Pellet Coolers			
PM ₁₀	0.19 ^f	0.02	2.00 ^d	0.28	PM ₁₀	0.36	0.01	6.00	0.17

^a From Table 2-2 Summary of Emissions, .
^b Table 2-6. Future Potential Emissions for Boiler Nos. 1, 2, 3, and 4.
^c Table 2-3. Future Potential Emissions for Citrus Feed Mill
^d Table 2-4. Future Potential Emissions for Citrus Pellet Mill
^e Actual emissions are an average of the 1998-1999 AOR emissions.
^f Data from 4/18/2000 stack test.

$\Delta = 4.04 - 1.42 = 2.62$
 $\Delta = 5.29 - 2.47$
 $\Delta = 191.81 - 42.71 = 149.10$

No change
See Table 2-4 / PM₁₀
4.04 in model
191.81 See Table 2-4
0.63 See Table 2-5

5.29
2.47
2.82

Table 6-3. Summary of SO₂ Facilities Considered for Inclusion in the AAQS and PSD Class II Air Modeling Analyses for SGCPC (revised 8/1/2000)

AIRS Number	Facility	County	UTM Coordinates		Relative to S. Garden *				Maximum SO ₂ Emissions (TPY)	Q ₁ (TPY) Emission Threshold ^b (Dist -2 x 20)	Include in Modeling Analysis ?
			East (km)	North (km)	X (km)	Y (km)	Distance (km)	Direction (deg)			
510003	US Sugar Clewiston	Hendry	506.1	2956.9	18.5	-0.7	18.5	92	7,806	330	YES
510001	Everglades Sugar	Hendry	509.6	2954.2	22.0	-3.4	22.3	99	607	405	YES
990086	Glades Correctional Institute	Palm Beach	523.4	2955.2	35.8	-2.4	35.9	94	98	678	NO
990332	Okeelanta Power	Palm Beach	525.0	2937.4	37.4	-20.2	42.5	118	939	810	YES
990026	Sugar Cane Growers	Palm Beach	534.9	2953.3	47.3	-4.3	47.5	95	2,555	910	YES
990061	U.S. Sugar -Bryant	Palm Beach	538.8	2968.1	51.2	10.5	52.3	78	2,698	1,005	YES
990016	Osceola Farms	Palm Beach	544.2	2968.0	56.6	10.4	57.5	80	2,023	1,111	YES ^c
	Lee County Resource Recovery	Lee	424.0	2946.0	-63.6	-11.6	64.6	260	490	1,253	NO
710002	FPL - Fort Myers	Lee	422.1	2952.9	-65.5	-4.7	65.7	266	68,536	1,273	YES ^c
850001	FPL -Martin	Martin	543.1	2992.9	55.5	35.3	65.8	58	93,788	1,275	YES ^c
990016	Atlantic Sugar Association	Palm Beach	552.9	2945.2	65.3	-12.4	66.5	101	1,217	1,289	NO
850102	Bechtel Indiantown	Martin	545.6	2991.5	58.0	33.9	67.2	60	2,629	1,304	NO
990021	Pratt & Whitney	Palm Beach	559.2	2978.3	71.6	20.7	74.5	74	504	1,451	NO
850007	Dickerson	Martin	569.5	2995.9	81.9	38.3	90.4	65	58	1,768	NO
990234	Palm Beach Resource Recovery	Palm Beach	585.8	2960.2	98.2	2.6	98.2	88	1,533	1,925	NO
850021	Stuart Contracting	Martin	575.2	3006.8	87.6	49.2	100.5	61	100	1,969	NO
990568	Lake Worth Generating	Palm Beach	592.8	2943.7	105.2	-13.9	106.1	98	468	2,082	NO
990045	Lake Worth Utilities	Palm Beach	592.8	2943.7	105.2	-13.9	106.1	98	5,031	2,082	NO
990042	FPL -Riviera Beach	Palm Beach	594.2	2960.6	106.6	3.0	106.6	88	73,475	2,093	NO
110120	North Broward Resource Recovery	Broward	583.6	2907.6	96.0	-50.0	108.2	118	896	2,125	NO
	Port Pierce Utilities	St. Lucie	566.8	3036.3	79.2	78.7	111.7	45	2,708	2,193	NO
110119	South Broward Resource Recovery	Broward	579.6	2883.3	92.0	-74.3	118.3	129	1,318	2,325	NO
110037	FPL -Lauderdale	Broward	580.1	2883.3	92.5	-74.3	118.6	129	47,858	2,333	NO
250020	Tarmac	Dade	562.9	2861.7	75.3	-95.9	121.9	142	2,792	2,399	NO
110036	FPL -Port Everglades	Broward	587.4	2885.3	99.8	-72.3	123.2	126	170,215	2,425	NO
	Dade Co. Resource Recovery	Dade	564.3	2857.4	76.7	-100.2	126.2	143	857	2,484	NO
	Vero Beach Power	St. Lucie	567.1	3056.5	79.5	98.9	126.9	39	18,496	2,498	NO

* Southern Gardens East and North Coordinates (km) 487.6 2957.6

^b Proposed project's emissions are significant to 2 km. Emission inventory is limited to facilities within 52km of SGC.

^c Large source beyond screening area included in modeling analysis.

Table 6-4. Summary of SO₂ Sources Included in the Air Modeling Analysis for SGCPC (revised 8/1/2000)

APIS Number	Facility	Units	Modeling ID Name	Stack Parameters				Emission Rate (g/s)		PSD Source? (EXP/CON)	Modeled in		
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)	3-Hour	24-Hour		AAQS	Class II	Class I
0510003	US Sugar - Clewiston ^c												
		PSD Baseline (On-crop season only)											
		Unit 1 PSD Baseline	USSBRL1B	23.1	1.86	344.0	30.20	-79.86	-58.21	EXP	No	Yes	Yes
		Unit 2 PSD Baseline	USSBLR2B	23.1	1.86	343.0	35.70	-79.86	-58.21	EXP	No	Yes	Yes
		Unit 3 PSD Baseline	USSBLR3B	27.4	2.29	342.0	14.70	-48.30	-33.20	EXP	No	Yes	Yes
		East Pellet Plant PSD Baseline	EPELLET	12.2	1.52	347.0	8.54	-10.30	-10.30	EXP	No	Yes	Yes
		West Pellet Plant PSD Baseline	WPELLET	15.7	1.52	347.0	8.54	-10.30	-10.30	EXP	No	Yes	Yes
		On-crop season future											
		Unit 1	USSBRL1F	65.0	2.44	347.0	15.36	78.79	73.73	CON	Yes	Yes	Yes
		Unit 2	USSBLR2F	65.0	2.44	338.0	13.86	78.49	73.44	CON	Yes	Yes	Yes
		Unit 3	USSBLR3F	65.0	2.44	333.2	6.78	47.08	47.08	CON	Yes	Yes	Yes
		Unit 4	USSBLR4F	45.7	2.51	344.3	20.28	21.53	3.68	CON	Yes	Yes	Yes
		Unit 7	USSBLR7F	68.6	2.59	405.4	20.77	13.91	12.65	CON	Yes	Yes	Yes
		Off-crop season future											
		Unit 1	USSBRL1N	65.0	2.44	347.0	14.05	51.64	24.29	CON	Yes	Yes	Yes
		Unit 2	USSBLR2N	65.0	2.44	338.0	12.68	51.27	24.02	CON	Yes	Yes	Yes
		Unit 3	USSBLR3N	65.0	2.44	333.2	6.20	30.74	30.20	CON	Yes	Yes	Yes
		Unit 4	USSBLR4N	45.7	2.51	344.3	0.00	0.00	0.00	CON	Yes	Yes	Yes
		Unit 7	USSBLR7N	68.6	2.59	405.4	23.60	17.39	15.81	CON	Yes	Yes	Yes
0510001	Everglades Sugar ^a	Main Boiler	EVERGLAD	21.9	1.10	477.0	10.10	34.90	34.90	NO	Yes	No	No
0990332	Okeelanta Corp.												
		Boiler 4 PSD Baseline	OKBLR4B	22.9	2.29	333.0	7.36	-10.95	-10.95	EXP	No	Yes	Yes
		Boiler 5 PSD Baseline	OKBLR5B	22.9	2.29	333.0	12.07	-15.64	-15.64	EXP	No	Yes	Yes
		Boiler 6 PSD Baseline	OKBLR6B	22.9	2.29	334.0	8.74	-15.64	-15.64	EXP	No	Yes	Yes
		Boiler 10 PSD Baseline	OKBLR10B	22.9	2.29	334.0	10.35	-17.15	-17.15	EXP	No	Yes	Yes
		Boiler 11 PSD Baseline	OKBLR11B	22.9	2.29	342.0	9.89	-16.79	-16.79	EXP	No	Yes	Yes
		Okeelanta Power Blrs 1,2,3 ^b	OKCOGEN	68.6	3.05	438.7	17.46	27.00	27.00	CON	Yes	Yes	Yes
0990026	Sugar Cane Growers ^a												
		Unit 1&2	SUGCN12	45.7	1.87	339.0	21.75	41.20	41.20	CON	Yes	Yes	Yes
		Unit 3	SUGCN3	27.4	1.52	339.0	22.25	16.20	16.20	CON	Yes	Yes	Yes
		Unit 4 PSD	SUGCN4	54.9	2.44	339.0	21.73	38.20	38.20	CON	Yes	Yes	Yes
		Unit 5	SUGCN5	45.7	2.30	339.0	15.94	27.90	27.90	CON	Yes	Yes	Yes
		Unit 8 PSD	SUGCN8	47.2	2.90	339.0	13.62	23.50	23.50	CON	Yes	Yes	Yes
		Unit 1&2 PSD Baseline	SUGCN12B	24.4	1.40	344.0	11.40	-24.20	-24.20	EXP	No	Yes	Yes
		Unit 3 PSD Baseline	SUGCN3B	24.4	1.60	344.0	15.60	-4.40	-4.40	EXP	No	Yes	Yes
		Unit 4 PSD Baseline	SUGCN4B	25.9	1.63	344.0	11.20	-24.20	-24.20	EXP	No	Yes	Yes
		Unit 5 PSD Baseline	SUGCN5B	24.4	1.40	344.0	15.20	-16.20	-16.20	EXP	No	Yes	Yes

Table 6-4. Summary of SO₂ Sources Included in the Air Modeling Analysis for SGPCPC (revised 8/1/2000)

APIS Number	Facility	Units	Modeling ID Name	Stack Parameters				Emission Rate (g/s)		PSD Source? (EXP/CON)	Modeled in		
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)	3-Hour	24-Hour		AAQS	Class II	Class I
		Unit 6&7 PSD Baseline	SUGCN67B	12.2	1.52	606.0	11.20	-51.00	-51.00	EXP	No	Yes	Yes
0990061	US Sugar-Bryant ^a	Unit 5 PSD	USSBRY5	42.7	2.90	345.0	11.49	45.70	45.70	CON	Yes	Yes	Yes
		Unit 1,2&3	USBRY123	19.8	1.64	342.0	36.40	109.50	109.50	CON	Yes	Yes	Yes
		Unit 1 PSD Baseline	USSBRY1B	19.8	1.68	494.0	44.30	-36.50	-36.50	EXP	No	Yes	Yes
		Unit 2&3 PSD Baseline	USBRY23B	19.8	1.68	344.0	37.90	-73.00	-73.00	EXP	No	Yes	Yes
0990019	Osceola Farms ^a	Unit 2	OSBLR2	27.4	1.52	339.0	18.63	17.12	17.12	CON	Yes	Yes	Yes
		Unit 3	OSBLR3	27.4	1.92	344.0	14.34	30.74	30.74	CON	Yes	Yes	Yes
		Unit 4	OSBLR4	27.4	1.83	344.0	16.53	17.12	17.12	CON	Yes	Yes	Yes
		Unit 5	OSBLR5	27.4	1.52	344.0	17.85	18.00	18.00	CON	Yes	Yes	Yes
		Unit 6	OSBLR6	27.4	1.92	339.0	18.25	33.39	33.39	CON	Yes	Yes	Yes
		Unit 1 PSD Baseline	OSBLR1B	22.0	1.52	342.0	8.18	-5.07	-5.07	EXP	No	Yes	Yes
		Unit 2 PSD Baseline	OSBLR2B	22.0	1.52	341.0	18.10	-16.32	-16.32	EXP	No	Yes	Yes
		Unit 3 PSD Baseline	OSBLR3B	22.0	1.93	341.0	14.50	-7.26	-7.26	EXP	No	Yes	Yes
		Unit 4 PSD Baseline	OSBLR4B	22.0	1.83	341.0	18.80	-13.61	-13.61	EXP	No	Yes	Yes
52FTM360002	FPL Fort Myers	Unit 1 PSD	FMU1	91.8	2.90	422.0	29.90	-585.50	-585.50	EXP	No	Yes	Yes
		Unit 2 PSD	FMU2	121.2	5.52	408.0	19.20	-1334	-1334.0	EXP	No	Yes	Yes
		HRSCs 1 - 6	PMYCT1_6	228.6	5.79	377.6	14.2	0.40	0.4	CON	Yes	Yes	Yes
		Gas Turbines 1 -12	FMYGT112	117.00	4.42	797.0	35.7	54.1	54.1	CON	Yes	No	No
0850001	FPL Martin	Units 1&2	MART12	152.1	7.99	420.9	21.03	1743.79	1743.79		No	No	No
		Aux Blr PSD	MARTAUX	18.3	1.10	535.4	15.24	12.90	12.90	CON	No	No	Yes
		Diesel Gens PSD	MARTGEN	7.6	0.30	785.9	39.62	0.51	0.51	CON	No	No	Yes
		Units 3&4 PSD	MART34	64.9	6.10	410.9	18.90	470.40	470.40	CON	No	No	Yes

^a Facilities or sources within facilities that operate only during the November 1 through May 31 crop season

^b Sugar mill sources that operate all year

^c Future data represents worst case emissions for May 1 through September 31 off-crop season operation, and October 1-April 30 for on-crop season. Updated from PSD modeling information, Golder Associates (7/18/00). Baseline data represents November 1 through April 30

Note: EXP = PSD expanding source.

CON = PSD consuming source.

NO = Source does not affect PSD increment.

Table 6-5. Summary of PM Facilities Considered for Inclusion in the AAQS and PSD Class II Air Modeling Analyses

AIRS Number	Facility	County	UTM Coordinates		Relative to S. Garden ^a				Maximum PM Emissions (TPY)	Q _c (TPY) Emission Threshold ^b (Dist -1) x 20	Include in Modeling Analysis ?
			East (km)	North (km)	X (km)	Y (km)	Distance (km)	Direction (deg)			
510003	US Sugar Clewiston	Hendry	506.1	2956.9	18.5	-0.7	18.5	92	2,190	300.3	YES
510001	Everglades Sugar	Hendry	509.6	2954.2	22.0	-3.4	22.3	99	41	375.2	NO
990086	Glades Correctional Institute	Palm Beach	523.4	2955.2	35.8	-2.4	35.9	94	30	647.6	NO
990332	Okeelanta Power	Palm Beach	525.0	2937.4	37.4	-20.2	42.5	118	283	780.1	NO
990026	Sugar Cane Growers	Palm Beach	534.9	2953.3	47.3	-4.3	47.5	95	1,032	879.9	YES
990061	U.S. Sugar -Bryant	Palm Beach	538.8	2968.1	51.2	10.5	52.3	78	979	975.3	YES
990016	Osceola Farms	Palm Beach	544.2	2968.0	56.6	10.4	57.5	80	700	1081.0	NO
710002	FPL - Fort Myers	Lee	422.1	2952.9	-65.5	-4.7	65.7	266	1,685	1243.4	YES ^c
850001	FPL -Martin	Martin	543.1	2992.9	55.5	35.3	65.8	58	9,103	1245.5	YES ^c
990016	Atlantic Sugar Association	Palm Beach	552.9	2945.2	65.3	-12.4	66.5	101	684	1259.3	NO
850102	Bechtel Indiantown	Martin	545.6	2991.5	58.0	33.9	67.2	60	270	1273.6	NO
990021	Pratt & Whitney	Palm Beach	559.2	2978.3	71.6	20.7	74.5	74	30	1420.6	NO
500234	Palm Beach Resource Recovery	Palm Beach	585.8	2960.2	98.2	2.6	98.2	88	26	1894.7	NO
500045	Lake Worth Utilities	Palm Beach	592.8	2943.7	105.2	-13.9	106.1	98	468	2052.3	NO
500042	FPL -Riviera Beach	Palm Beach	594.2	2960.6	106.6	3.0	106.6	88	3,340	2062.8	NO
112120	North Broward Resource Recovery	Broward	583.6	2907.6	96.0	-50.0	108.2	118	103	2094.8	NO

^a Southern Gardens East and North Coordinates (km)

487.6 2957.6

^b Proposed project's emissions are significant to 3.5 km. Emission inventory is limited to facilities within 53.5 km of the SGC facility.

^c Large source beyond screening area included in modeling analysis.

Table 6-6. Summary of PM Sources Included in the Air Modeling Analysis (revised 8/7/00)

6-5_6 8-30-00
09/01/2000

APIS Number	Facility	Units	ISCST3 ID Name	Stack Parameters				Emission Rate (g/s)	PSD Source? (EXP/CON)	Modeled in	
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)			AAQS	Class II
510003	US Sugar - Clewiston ^b										
		PSD Baseline (On-crop season only)									
		Unit 1 PSD Baseline	USSBRL1B	23.1	1.86	344.0	30.20	-7.48	EXP	No	Yes
		Unit 2 PSD Baseline	USSBLR2B	23.1	1.86	343.0	35.70	-7.04	EXP	No	Yes
		Unit 3 PSD Baseline	USSBLR3B	27.4	2.29	342.0	14.70	-4.57	EXP	No	Yes
		East Pellet Plant PSD Baseline	EPELLET	12.2	1.52	347.0	8.54	-1.69	EXP	No	Yes
		West Pellet Plant PSD Baseline	WPELLET	15.7	1.52	347.0	8.54	-0.82	EXP	No	Yes
		Units 5&6 PSD Baseline	USBLR56B	23.1	1.86	494.0	44.30	-52.92	EXP	No	Yes
		Off-crop season future									
		Unit 1	USSBLR1F	65.0	2.44	347.0	12.05	9.11	CON	Yes	Yes
		Unit 2	USSBLR2F	65.0	2.44	338.7	12.05	9.11	CON	Yes	Yes
		Unit 3	USSBLR3F	65.0	2.44	333.2	8.47	9.33	CON	Yes	Yes
		Unit 4	USSBLR4F	45.7	2.51	344.3	0.00	0.00	CON	Yes	Yes
		Unit 7	USSBLR7F	68.6	2.59	405.4	23.60	2.79	CON	Yes	Yes
		On-crop season future									
		Unit 1	USSBLR1N	65.0	2.44	347.0	19.20	14.52	CON	Yes	Yes
		Unit 2	USSBLR2N	65.0	2.44	338.7	17.32	13.09	CON	Yes	Yes
		Unit 3	USSBLR3N	65.0	2.44	333.2	8.47	9.33	CON	Yes	Yes
		Unit 4	USSBLR4N	45.7	2.51	344.3	24.03	10.55	CON	Yes	Yes
		Unit 7	USSBLR7N	68.6	2.59	405.4	23.60	2.79	CON	Yes	Yes
990026	Sugar Cane Growers ^a										
		Unit 1&2	SUGCN12	45.7	1.87	339.0	21.75	6.49	CON	Yes	Yes
		Unit 3	SUGCN3	27.4	1.52	339.0	22.25	12.95	CON	Yes	Yes
		Unit 4 PSD	SUGCN4	54.9	2.44	339.0	21.73	12.45	CON	Yes	Yes
		Unit 5	SUGCN5	45.7	2.30	339.0	15.94	12.45	CON	Yes	Yes
		Unit 8 PSD	SUGCN8	47.2	2.90	339.0	13.62	8.57	CON	Yes	Yes
		Unit 1&2 PSD Baseline	SUGCN12B	24.4	1.40	344.0	11.40	-18.94	EXP	No	Yes
		Unit 3 PSD Baseline	SUGCN3B	24.4	1.60	344.0	15.60	-5.70	EXP	No	Yes
		Unit 4 PSD Baseline	SUGCN4B	25.9	1.63	344.0	11.20	-10.90	EXP	No	Yes
		Unit 5 PSD Baseline	SUGCN5B	24.4	1.40	344.0	15.20	-9.10	EXP	No	Yes
		Unit 6&7 PSD Baseline	SUGCN67B	12.2	1.52	606.0	11.20	-2.50	EXP	No	Yes
710002	FPL - Fort Myers ^c										
		Unit 1 PSD	FMU1	91.8	2.90	422.0	29.90	-21.30	EXP	No	Yes
		Unit 2 PSD	FMU2	121.2	5.52	408.0	19.20	-48.50	EXP	No	Yes
		HRSGs 1 - 6	FMYCT1_6	228.6	5.79	377.6	14.2	7.56	CON	Yes	Yes
		Gas Turbines 1 - 12	FMYGT112	117.00	4.42	797.0	35.7	37.68	CON	Yes	Yes
		Colling Towers 1 - 12	FMYCT112	164.64	9.75	304.3	7.59	1.61	CON	Yes	Yes

Table 6-6. Summary of PM Sources Included in the Air Modeling Analysis (revised 8/7/00)

APIS Number	Facility	Units	ISCST3 ID Name	Stack Parameters				Emission Rate (g/s)	PSD Source? (EXP/CON)	Modeled in	
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)			AAQS	Class II
850001	FPL -Martin ^c	Units 1&2	MART12	152.1	7.99	420.9	21.03	218.00	CON	Yes	Yes
		Aux Blr PSD	MARTAUX	18.3	1.10	535.4	15.24	0.01	CON	Yes	Yes
		Diesel Gens PSD	MARTGEN	7.6	0.30	785.9	39.62	0.22	CON	Yes	Yes
		Units 3&4 PSD	MART34	64.9	6.10	410.9	18.90	30.54	CON	Yes	Yes
990061	US Sugar-Bryant ^a	Unit 5 PSD	USSBRY5	42.7	2.90	345.0	11.49	12.59	CON	Yes	Yes
		Unit 1,2&3	USBRY123	19.8	1.64	342.0	36.40	43.66	CON	Yes	Yes
		Unit 1 PSD Baseline	USSBRY1B	19.8	1.68	494.0	44.30	-82.40	EXP	No	Yes
		Unit 2&3 PSD Baseline	USBRY23B	19.8	1.68	344.0	37.90	-12.04	EXP	No	Yes

^a Facilities or sources within facilities that operate only during the October 1 through April 30 crop season

^b Future data represents worst case emissions for May 1 through September 31 off-crop season operation, and October 1-April 30 for on-crop season. Updated from PSD modeling information, Golder Associates (7/18/00). Baseline data represents November 1 through April 30

Note: EXP = PSD expanding source

CON = PSD consuming source

NO = Source does not effect PSD increment.

Table 6-7. Summary of CO Facilities Considered for Inclusion in the AAQS Air Modeling Analyses (revised 8/21/2000)

AIRS Number Facility	County	UTM Coordinates		Relative to U.S. Sugar ^a				Maximum CO	Q, (TPY) Emission	Include in Modeling Analysis?	
		East (km)	North (km)	X (km)	Y (km)	Distance (km)	Direction (deg)	Emissions (TPY)	Threshold ^b (Dist -2) x 20		
510003	US Sugar Clewiston	Hendry	506.1	2956.9	18.5	-0.7	18.5	92	64,644	330.3	YES
510001	Everglades Sugar	Hendry	509.6	2954.2	22.0	-3.4	22.3	99	15	405.2	NO
990086	Glades Correctional Institute	Palm Beach	523.4	2955.2	35.8	-2.4	35.9	94	10	677.6	NO
990332	Okeelanta Power	Palm Beach	525.0	2937.4	37.4	-20.2	42.5	118	3,297	810.1	YES
990026	Sugar Cane Growers	Palm Beach	534.9	2953.3	47.3	-4.3	47.5	95	33,771	909.9	YES
990061	U.S. Sugar -Bryant	Palm Beach	538.8	2968.1	51.2	10.5	52	78	19,958	1005.3	YES
990016	Osceola Farms ^c	Palm Beach	544.2	2968.0	56.6	10.4	57.5	80	25,175	1111.0	YES
360119	Lee County Resource Recovery	Lee	424.0	2946.0	-63.6	-11.6	64.6	260	238	1253.0	NO
710002	FPL - Fort Myers ^c	Lee	422.1	2952.9	-65.5	-4.7	65.7	266	4,478	1273.4	YES
850001	FPL -Martin ^c	Martin	543.1	2992.9	55.5	35.3	65.8	58	2,285	1275.5	YES
990016	Atlantic Sugar Association ^c	Palm Beach	552.9	2945.2	65.3	-12.4	66.5	101	25,065	1289.3	YES
850102	Bechtel Indiantown	Martin	545.6	2991.5	58.0	33.9	67.2	60	1,651	1303.6	NO
990021	Pratt & Whitney	Palm Beach	559.2	2978.3	71.6	20.7	74.5	74	30	1450.6	NO
500234	Palm Beach Resource Recovery	Palm Beach	585.8	2960.2	98.2	2.6	98.2	88	1,562	1924.7	NO
500045	Lake Worth Utilities	Palm Beach	592.8	2943.7	105.2	-13.9	106.1	98	204	2082.3	NO

^a Southern Gardens East and North Coordinates (km) 487.6 2957.6

^b Proposed project's emissions are significant to 2 kilometers.

Emission inventory is limited to facilities within 52 km of Southern Gardens facility but includes major sources outside the proposed project's significant impact distance.

^c Large source beyond screening area included in modeling analysis.

Table 6-8. Summary of CO Sources Included in the Air Modeling Analysis (revised 8/18/2000)

APIS Number	Facility	Units	ISCST3 ID Name	Stack Parameters				Emission Rate (g/s)
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)	
510003	US Sugar Clewiston ^b	Unit 1	USSBRL1	65.0	2.44	347.0	19.20	811.79
		Unit 2	USSBLR2	65.0	2.44	338.0	17.32	732.19
		Unit 3	USSBLR3	65.0	2.44	333.2	8.47	334.28
		Unit 4	USSBLR4	45.7	2.51	344.3	25.35	518.43
		Unit 7	USSBLR7	68.6	2.59	405.4	25.96	71.62
990332	Okeelanta	Cogen Blrs 1,2,& 3	OKCOGEN	68.6	3.05	438.7	17.46	94.61
990026	Sugar Cane Growers ^a	Unit 1&2	SUGCN12	45.7	1.87	339.0	21.75	547.09
		Unit 3	SUGCN3	27.4	1.52	339.0	22.25	187.61
		Unit 4 PSD	SUGCN4	54.9	2.44	339.0	21.73	467.71
		Unit 5	SUGCN5	45.7	2.30	339.0	15.94	359.60
		Unit 8 PSD	SUGCN8	47.2	2.90	339.0	13.62	381.02
990061	U.S. Sugar -Bryant ^a	Unit 5 PSD	USSBRY5	42.7	2.90	345.0	11.49	760.91
		Unit 1,2&3	USBRY123	19.8	1.64	342.0	36.40	1309.77
990016	Osceola Farms ^a	Unit 2	OSBLR2	27.4	1.52	339.0	18.63	317.52
		Unit 3	OSBLR3	27.4	1.92	344.0	14.34	128.77
		Unit 4	OSBLR4	27.4	1.83	344.0	16.53	317.52
		Unit 5	OSBLR5	27.4	1.52	344.0	17.85	374.22
		Unit 6	OSBLR6	27.4	1.92	339.0	18.25	310.40
		0710002	FPL Fort Myers	Gas Turbines 1 - 12	FMGT1_12	9.8	3.47	797.0
		HRSGs 1-6	FMCT1_6	38.1	5.79	377.6	21.43	32.51
		CT 1 - 2	FMCT1_2	24.4	6.25	852.00	39.1	34.32
850001	FPL -Martin	Units 1&2	MART12	152.1	7.99	420.9	21.03	38.92
		Aux Blr PSD	MARTAUX	18.3	1.10	535.4	15.24	-
		Diesl Gens PSD	MARTGEN	7.6	0.30	785.9	39.62	-
		Units 3&4 PSD	MART34	64.9	6.10	410.9	18.90	26.66
990016	Atlantic Sugar ^a	Unit 1	ATLSUG1	27.4	1.83	346.0	17.97	299.90
		Unit 2	ATLSUG2	27.4	1.83	350.0	23.36	585.60
		Unit 3	ATLSUG3	27.4	1.83	350.0	21.56	180.20
		Unit 4	ATLSUG4	27.4	1.83	344.0	25.16	180.20
		Unit 5 ^b	ATLSUG5	27.4	1.68	339.0	19.24	209.10

^a Facilities or sources with facilities that operate only during the October 1 through April 30 crop season.

^b Sugar mill sources that operate all year.

Table 6-9. Structure Dimensions Used in the SGPCPC Modeling Analysis

Structure	Actual Building Dimensions					
	Height		Length		Width	
	ft	m	ft	m	ft	m
Boiler Building	26	7.9	50	15.2	95	29.0
Juice Building	34	10.4	302	92.0	79	24.1
Concentrate Tank Farm	49	14.9	183	55.8	158	48.2
Small Concentrate Tank	45	13.7	84	25.6	82	25.0
Feed Mill	41	12.5	170	51.8	50	15.2
Pulp Storage	43	13.0	144	43.9	80	24.4
Peel Bins	45	13.7	74	22.6	26	7.9
Cooling Towers	30	9.1	110	33.5	220	67.1
Aseptic Tank Farm	30	9.1	364	110.9	367	111.9
Refrigeration Bldg.	23	7.0	110	33.5	60	18.3
Fruit Bin	47	14.3	96	29.3	34	10.4

Table 6-10. Property Boundaries Receptors Used in the SGPCPC Modeling Analysis

Direction (Degrees)	Distance (m)	Direction (Degrees)	Distance (m)	Direction (Degrees)	Distance (m)
10	545	150	257	312	610
20	566	160	238	314	630
22	573	170	229	316	653
24	581	180	227	318	678
26	589	190	232	320	706
28	598	200	244	322	712
30	609	210	267	324	692
32	587	220	305	326	673
34	557	230	367	328	657
36	529	240	482	330	642
38	505	250	483	332	628
40	484	260	461	334	616
50	406	270	454	336	605
60	359	280	461	338	595
70	331	290	483	340	586
80	316	300	524	342	578
90	311	302	535	344	570
100	316	304	547	346	564
110	331	306	561	348	559
120	359	308	576	350	554
130	339	310	592	360	541
140	288				

Note: Distances are relative to the SE corner of the feed mill building. Distances greater than 575 meters are at 2-degree spacing and less than 100 meters between receptors.

Table 6-11. Everglades National Park Receptors Utilized in the PSD Class I Modeling Analysis

UTM Coordinates (m)		UTM Coordinates (m)	
East	North	East	North
557000	2789000	540000	2848600
556600	2792000	535000	2848600
556000	2796000	530000	2848600
553000	2796500	525000	2848600
548000	2796500	520000	2848600
542700	2796500	514500	2848600
542700	2800000	514500	2843000
542700	2805000	514500	2838000
542700	2810000	514500	2832500
542000	2811000	510000	2832500
541300	2814000	505000	2832500
542700	2816000	500000	2832500
544100	2820000	495000	2832500
543500	2824600	494500	2837000
545000	2829000	491500	2841000
545700	2832200	488500	2845500
546200	2835700	483000	2848500
548600	2837500	480000	2852500
550300	2839000	475000	2854000
545000	2839000	473500	2857000
540000	2839000	473500	2860000
550500	2844000	469000	2860000
545000	2844000	464000	2860000
540000	2844000	459500	2863200
550300	2848600	454000	2863200
545000	2848600		

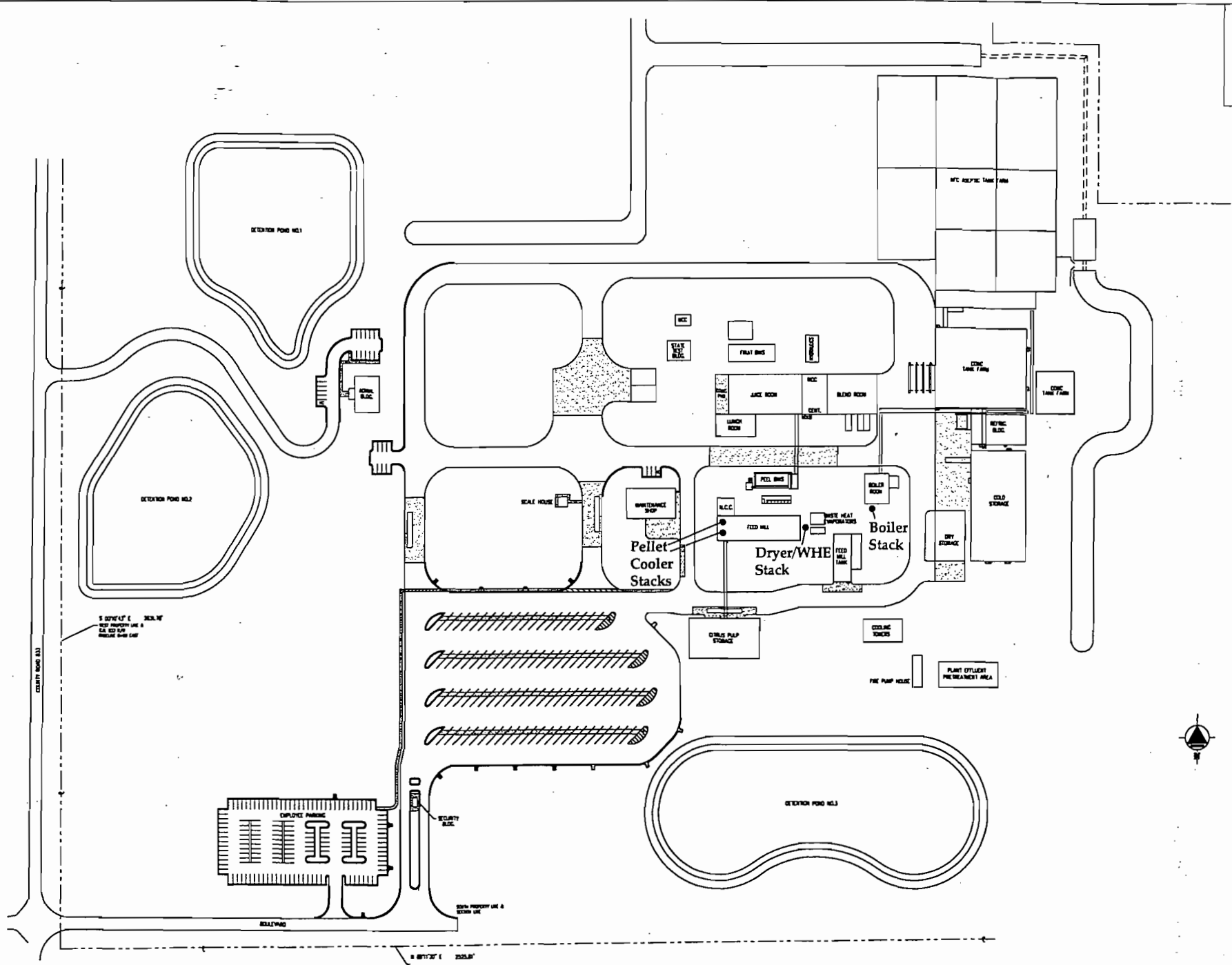
Note: Southern Gardens coordinates are 487600E, 2957600N.
m = meter.

6-25
 Figure 6-1
 Facility Plot Plan
 0037568Y\F1\WP\Figure6-1.dwg



Legend

- Stack Location



7.0 AIR MODELING ANALYSIS RESULTS

7.1 SIGNIFICANT IMPACT ANALYSIS

7.1.1 SITE VICINITY

The maximum predicted SO₂, PM₁₀, NO_x, and CO concentrations from the screening analysis due to the SGPC facility only are compared to the EPA significant impact levels in Table 7-1. Based upon the modeling results, the facility was determined have a significant impact for SO₂ and PM₁₀. Additional detailed modeling analyses are, therefore, required for each of these pollutants. The additional analyses include a comparison of impacts of all future source emissions to the AAQS for SO₂, PM₁₀, and CO and a PSD Class II increment analysis for SO₂ and PM₁₀. The distances of the project's significant impact were determined to be 2 km for SO₂ and CO and 3.5 km for PM₁₀.

7.1.2 EVERGLADES NATIONAL PARK PSD CLASS I AREA

The maximum predicted SO₂, PM₁₀, NO_x, and CO concentrations due to the SGPC facility only are compared to the proposed EPA Class I significant impact levels in Table 7-2. The maximum predicted SO₂, PM₁₀, and NO_x concentrations are below the EPA significant impact levels. Therefore, no further PSD Class I increment modeling is required.

7.2 AAQS ANALYSES

The maximum predicted SO₂ and PM₁₀ concentrations from the screening analysis due to all future sources are presented in Table 7-3. Refined modeling was performed for these concentrations. The refined modeling results are added to a measured non-modeled background concentration to produce a cumulative total air quality concentration that can be compared with the AAQS. A summary of the maximum predicted total concentrations is presented in Table 7-4.

The maximum predicted total SO₂ concentrations are 10.7, 91, and 215 µg/m³, respectively, for the annual, 24-hour and 3-hour averaging times. These concentrations are all below the AAQS of 60, 260, and 1,300 µg/m³, respectively, for these averaging times. These maximums are predicted to occur near the SGPC facility property boundary.

The maximum predicted total PM₁₀ concentrations are 25.1 and 60.0 µg/m³, respectively, for the annual and 24-hour averaging times. These concentrations are all below the AAQS of 50 and 150 µg/m³, respectively, for these averaging times. These maximums are predicted to occur near the SGPC facility property boundary.

The maximum predicted total CO concentrations are 4,204 µg/m³ for the 8-hour averaging time, and 7,580 µg/m³ for the 1-hour averaging time. These concentrations are below the AAQS of 40,000 µg/m³ for the 1-hour averaging time and 10,000 µg/m³ for the 8-hour averaging time.

7.3 PSD CLASS II ANALYSIS

The maximum predicted SO₂ and PM₁₀ PSD increment consumption from the screening analysis due to all PSD-affecting sources are compared with the allowable PSD Class II increments in Table 7-5. Refinements were not performed because all maximum impacts occurred at the SGPC property boundary. A summary of the PSD Class II analysis is presented in Table 7-6.

The maximum predicted SO₂ PSD increment consumption is 2.5, 77.2, and 168 µg/m³, respectively for the annual, 24-hour and 3-hour averaging times. These concentrations are all below the allowable PSD Class II increments of 20, 91, and 512 µg/m³, respectively, for these averaging times.

The maximum predicted PM₁₀ PSD increment consumption is 1.2 and 22.0 µg/m³, respectively, for the annual and 24-hour averaging times. These concentrations are all below the allowable PSD Class II increments of 17 and 30 µg/m³, respectively, for these averaging times.

Table 7-1. Maximum Predicted Pollutant Impacts for the Project Only at SGPCP

Averaging Time	Concentration ^a (ug/m3)	Receptor Location ^b		Time Period (YYMMDDHH)	EPA Significant Impact Level (mg/m ³)
		Direction (degree)	Distance (m)		
SO₂					
Annual	0.3	230	1000	87123124	
	0.3	180	1000	88123124	
	0.3	230	1000	89123124	1
	0.4	244	600	90123124	
	0.3	240	1000	91123124	
HIGH 24-Hour	5.1	180	1500	87021824	
	5.9	188	1000	88020624	
	5.3	50	500	89052324	5
	6.6	230	500	90051124	
	5.1	290	600	91052824	
HIGH 3-Hour	19.7	180	400	87032112	
	17.8	40	600	88052312	
	19.7	300	600	89021515	25
	19.2	302	535	90050212	
	19.7	300	524	91040712	
PM₁₀					
Annual	1.0	110	331	87123124	
	1.3	120	359	88123124	
	1.3	120	359	89123124	1
	1.2	240	482	90123124	
	1.0	240	482	91123124	
HIGH 24-Hour	20.7	180	227	87030524	
	21.5	180	227	88020624	
	17.9	90	311	89052424	5
	20.8	100	316	90011224	
	24.8	120	359	91122924	
NO_x					
Annual	0.3	230	700	87123124	
	0.4	110	331	88123124	
	0.4	110	331	89123124	1
	0.5	244	900	90123124	
	0.4	240	1000	91123124	
CO					
HIGH 8-Hour	662	180	500	87032116	
	584	180	700	88021616	
	705	190	700	89012416	500
	864	230	500	90051116	
	670	308	576	91052416	
HIGH 1-Hour	1521	80	1000	87021617	
	1598	120	359	88050414	
	1645	120	359	89051813	2,000
	1604	60	359	90051812	
	1661	290	483	91053011	

^a Based on 5-year meteorological record, Fort Myers/Ruskin, 1987-91

^b Relative to Southeast corner of Feed Mill building

^c Refined values

Note: YYMMDDHH = Year, Month, Day, Hour Ending
High = Highest Concentration in 5 years.

Table 7-2. Maximum Pollutant Concentrations Predicted for the Proposed Project at the ENP PSD Class I Area as Compared to Proposed EPA Class I Significant Impact Levels

Pollutant	Averaging Time	Concentrations (ug/m ³)	Proposed EPA Class I Significant Impact Levels (ug/m ³)
SO ₂	Annual	0.0055	0.1
	24-Hour	0.066	0.2
	3-Hour	0.32	1.0
PM ₁₀	Annual	0.0078	0.2
	24-Hour	0.087	0.3
NO ₂	Annual	0.0270	0.1

Note: Maximum Impacts predicted with CALPUFF Model and Fort Myers/Tampa meteorological data for the ISCST3 model, 1987-91, enhanced for CALPUFF.

Table 7-3. Maximum Predicted Pollutant Impacts Due to All Future Modeled Sources
AAQS Screening Analysis, SGPCP

Averaging Time	Concentration ^a (ug/m ³)	Receptor Location		Time Period (YYMMDDHH)
		Direction (degree)	Distance (m)	
SO₂				
Annual	4.4	110	331	87123124
	5.4	110	331	88123124
	4.9	110	331	89123124
	5.6	240	700	90123124
	5.0	240	700	91123124
HSH 24-Hour	50	110	331	87010124
	49	110	331	88050624
	44	110	331	89050224
	34	110	331	90102524
	78	110	331	91030424
HSH 3-Hour	143	110	331	87031012
	159	110	331	88070115
	151	100	316	89051118
	157	100	316	90011215
	168	110	331	91030415
PM₁₀				
Annual	1.6	110	331	87123124
	2.1	120	359	88123124
	2.1	120	359	89123124
	2.1	240	482	90123124
	1.8	240	482	91123124
HSH 24-Hour	20.5	180	227	87030424
	22.0	120	359	88050624
	17.7	110	331	89050624
	18.1	110	331	90010924
	21.3	120	359	91021124
CO				
H2H 8-Hour	786	180	500	87022316
	657	240	700	88110716
	754	190	500	89052716
	833	230	600	90032316
	846	300	524	91051016
H2H 1-Hour	1,971	360	2000	87120205
	2,051	230	400	88052011
	2,054	110	331	89042712
	1,990	180	300	90041814
	2,023	360	2000	91020620

^a Based on 5-year meteorological record, Fort Myers/Ruskin, 1987-91^b Relative to Southeast corner of Feed Mill buildingNote: YYMMDDHH = Year, Month, Day, Hour Ending
H2H = Highest, 2nd-Highest Concentration in 5 years.

Table 7-4. Maximum Refined Impacts as Compared to AAQS, SGPCP

Averaging Time/ Pollutant	Concentration (ug/m ³)			Receptor Location		Period Ending (YYMMDDHH)	Florida AAQS (ug/m ³)
	Total	Contributed from		Direction (degrees)	Distance (m)		
		Modeled	Background				
<u>SO₂</u>							
Annual	10.7	5.7	5	242	600	90123124	60
HSH 24-hour	90.9	77.9	13	110	331	91030424	260
HSH 3-hour	215	168	47	110	331	91030415	1,300
<u>PM₁₀</u>							
Annual	25.1	2.1	23	240	482	90123124	50
HSH 24-hour	60.0	22.0	38	120	359	88050624	150
<u>CO</u>							
H2H 8-Hour	4,204	871	3,333	232	600	90032316	10,000
	4,179	846	3,333	300	524	91051016	
H2H 1-Hour	7,528	1,973	5,555	6	2000	87120205	40,000
	7,580	2,025	5,555	358	2000	91020620	

Table 7-5. Maximum Predicted Pollutant Impacts Due to All Future Modeled Sources
PSD Class II Screening Analysis, SGPCPC

Averaging Concentration ^a (ug/m ³)	Receptor Location		Time Period (YYMMDDHH)	
	Direction (degree)	Distance (m)		
<u>SO₂</u>				
Annual	1.8	110	331	87123124
	2.5	110	331	88123124
	2.0	110	331	89123124
	1.7	240	700	90123124
	1.0	240	1000	91123124
HSH 24-Hour	49	110	331	87010124
	49	110	331	88050624
	43	110	331	89050224
	34	110	331	90102524
	77	110	331	91030424
HSH 3-Hour	143	110	331	87031012
	159	110	331	88070115
	151	100	316	89051118
	157	100	316	90011215
	168	110	331	91030415
<u>PM₁₀</u>				
Annual	1.0	110	331	87123124
	1.2	120	359	88123124
	1.2	120	359	89123124
	1.2	240	482	90123124
	0.9	240	482	91123124
HSH 24-Hour	20.5	180	227	87030424
	22.0	120	359	88050624
	16.9	120	359	89041124
	18.0	110	331	90010924
	21.3	120	359	91021124

^a Based on 5-year meteorological record, Fort Myers/Ruskin, 1987-91

^b Relative to Southeast corner of Feed Mill building

Note: YYMMDDHH = Year, Month, Day, Hour Ending
H2H = Highest, 2nd-Highest Concentration in 5 years.

Table 7-6. Maximum Refined Impacts as Compared to PSD Class II Increments, SGPCP

Averaging Time/ Pollutant	Concentration (ug/m ³)	Receptor Location		Period Ending (YYMMDDHH)	Allowable PSD Class II Increment (ug/m ³)
		Direction (degrees)	Distance (m)		
<u>SO₂</u>					
Annual	2.5	110	331	88123124	20
24-hour	77.2	110	331	91030424	91
3-hour	168	110	331	91030415	512
<u>PM₁₀</u>					
Annual	1.2	120	359	88123124	17
24-hour	22.0	120	359	88050624	30

8.0 IMPACT ANALYSES

8.1 VICINITY OF CLEWISTON

The primary vegetation in the vicinity of the SGPC facility is sugar cane and citrus groves. Some vegetable farming, nurseries, and sod farms are also located in the general area. According to the soil survey of Hendry County (USDA Soil Conservation Service, 1990), soils in the vicinity of the SGPC facility include Immokalee sand and Myakka sand. These soils are characterized as poorly drained soils found on broad flatwoods with a dark gray sand surface layer about 5 inches thick and a sandy subsoil. They have a high water table within 10 inches of the surface for about 5 months in most years. Natural vegetation consists of South Florida slash pine and saw palmetto.

As described in the air quality impact analysis (Section 7.0), the maximum predicted SO₂, NO₂, and PM₁₀ concentrations in the vicinity of the site as a result of the facility are predicted to be below the AAQS. Since the AAQS are designed to protect the public welfare, including effects on soils and vegetation, no detrimental effects on soils or vegetation should occur in this area due to the facility. The potential impacts of SO₂, NO₂, PM, and CO upon soils, vegetation, and visibility in the Everglades National Park are addressed in the following sections.

8.2 PSD CLASS I AREA

This section focuses on the ecological effects of the proposed facility modification on Air Quality Related Values (AQRV), as defined under PSD regulations, in the Everglades National Park (ENP). The ENP is the closest Class I area to the SGPC facility, and is located approximately 98.5 km south of the SGPC facility. The AQRVs are defined as being:

"All those values possessed by an area except those that are not affected by changes in air quality and include all those assets of an area whose vitality, significance, or integrity is dependent in some way on the air environment. These values include visibility and those scenic, cultural, biological, and recreational resources of an area that are affected by air quality. Important attributes of an area are those values or assets that make an area significant as a monument, preserve, or primitive area. They are the assets that are to be preserved if the area is to achieve the purposes for which it was set aside" (Federal Register, 1978).

The AQRVs include freshwater and coastal wetlands, dominant plant communities, unique and rare plant communities, soils and associated periphyton, and the wildlife dependent on these communities for habitat. Rare, endemic, threatened, and endangered species of the national park and bioindicators of air pollution (e.g., lichens) are also evaluated.

A screening approach was used that compared the maximum predicted ambient concentration of air pollutants of concern in the Everglades NP (Table 8-1) with effect threshold limits for both vegetation and wildlife as reported in the scientific literature. A literature search was conducted that specifically addressed the effects of air contaminants on plant species reported to occur in the park. While the literature search focused on such species as cabbage palm, Eastern red cedar, lichens, and species of the hardwood swamplands and mangrove forest, few specific citations that addressed these species were found. It is recognized that effect threshold information is not available for all species found in the Everglades National Park, although studies have been performed on a few of the common species and on other similar species that can be used as indicators of effects.

8.2.1 IMPACTS TO SOILS

For soils, the potential and hypothesized effects of atmospheric deposition include:

- Increased soil acidification,
- Alteration in cation exchange,
- Loss of base cations, and
- Mobilization of trace metals.

The potential sensitivity of specific soils to atmospheric inputs is related to two factors. First, the physical ability of a soil to conduct water vertically through the soil profile is important in influencing the interaction with deposition. Second, the ability of the soil to resist chemical changes, as measured in terms of pH and soil cation exchange capacity (CEC), is important in determining how a soil responds to atmospheric inputs.

The soils of the Everglades National Park are generally classified as histosols or entisols. Histosols (peat soils) are organic and have extremely high buffering capacities based on their CEC, base saturation, and bulk density. Therefore, they would be relatively insensitive to atmospheric inputs. The entisols are shallow sandy soils overlying limestone, such as the soils found in the pinelands. The direct connection of these soils with subsurface limestone tends to neutralize any acidic inputs. Moreover, the groundwater table is highly buffered due to the interaction with subsurface limestone formations, which results in high alkalinity (as CaCO_3).

The relatively low sensitivity of the soils to acid inputs coupled with the extremely low ground-level concentrations of contaminants projected for the Everglades National Park from the SGPC facility emissions precludes any significant impact on soils.

8.2.2 IMPACTS TO VEGETATION

In general, the effects of air pollutants on vegetation occur primarily from SO_2 , NO_2 , O_3 , and PM. Effects from minor air contaminants such as fluoride, chlorine, hydrogen chloride, ethylene, ammonia, hydrogen sulfide, CO, and pesticides have also been reported in the literature. The effects of air pollutants are dependent both on the concentration of the contaminant and the duration of the exposure. The term "injury," as opposed to damage, is commonly used to describe all plant responses to air contaminants and will be used in the context of this analysis. Air contaminants are thought to interact primarily with plant foliage, which is considered to be the major pathway of exposure. For purposes of this analysis, it was assumed that 100 percent of each air contaminant of concern is accessible to the plants.

Injury to vegetation from exposure to various levels of air contaminants can be termed acute, physiological, or chronic. Acute injury occurs as a result of a short-term exposure to a high contaminant concentration and is typically manifested by visible injury symptoms ranging from chlorosis (discoloration) to necrosis (dead areas). Physiological or latent injury occurs as the result of a long-term exposure to contaminant concentrations below that which results in acute injury symptoms. Chronic injury results from repeated exposure to low concentrations over extended periods of time,

often without any visible symptoms, but with some effect on the overall growth and productivity of the plant. In this assessment, 100 percent of the particular air pollutant in the ambient air was assumed to interact with the vegetation. This is a conservative approach.

The concentration of the pollutant, duration of exposure, and frequency of exposures influence the response of vegetation and wildlife to atmospheric pollutants. The pattern of pollutant exposure expected from the facility is that of a few episodes of relatively high ground-level concentration which occur during certain meteorological conditions interspersed with long periods of extremely low ground-level concentrations. If there are any effects of stack emissions on plants and animals they will be from the short-term, higher doses. A dose is the product of the concentration of the pollutant and duration of the exposure.

Sulfur Dioxide

Sulfur is an essential plant nutrient usually taken up as sulfate ions by the roots from the soil solution. When sulfur dioxide in the atmosphere enters the foliage through pores in the leaves, it reacts with water in the leaf interior to form sulfite ions. Sulfite ions are highly toxic. They interact with enzymes, compete with normal metabolites, and interfere with a variety of cellular functions (Horsman and Wellburn, 1976). However, within the leaf, sulfite is oxidized to sulfate ions, which can then be used by the plant as a nutrient. Small amounts of sulfite may be oxidized before they prove harmful.

SO₂ gas at elevated levels has long been known to cause injury to plants. Acute SO₂ injury usually develops within a few hours or days of exposure, and symptoms include marginal, flecked, and/or intercostal necrotic areas that appear water-soaked and dullish green initially. This injury generally occurs to younger leaves. Chronic injury usually is evident by signs of chlorosis, bronzing, premature senescence, reduced growth, and possible tissue necrosis (EPA, 1982). Observed SO₂ effect levels for several plant species and plant sensitivity groupings are presented in Tables 8-2 and 8-3, respectively.

Many studies have been conducted to determine the effects of high-concentration, short-term SO₂ exposure on natural community vegetation. Sensitive plants include ragweed, legumes, blackberry, southern pine, and red and black oak. These species are injured by exposure to 3-hour SO₂ concentrations of 790 to 1,570 µg/m³. Intermediate plants include locust and sweetgum. These species are injured by exposure to 3-hour SO₂ concentrations of 1,570 to 2,100 µg/m³. Resistant species (injured at concentrations above 2,100 µg/m³ for 3 hours) include white oak and dogwood (EPA, 1982).

A study of native Floridian species (Woltz and Howe, 1981) demonstrated that cypress, slash pine, live oak, and mangrove exposed to 1,300 µg/m³ SO₂ for 8 hours were not visibly damaged. This finding support the levels cited by other researchers on the effects of SO₂ on vegetation. A corroborative study (McLaughlin and Lee, 1974) demonstrated that approximately 20 percent of a cross-section of plants ranging from sensitive to tolerant was visibly injured at 3-hour SO₂ concentrations of 920 µg/m³.

Two lichen species indigenous to the park area exhibited signs of SO₂ damage in the form of decreased biomass gain and photosynthetic rate as well as membrane leakage when exposed to concentrations of 200 to 400 µg/m³ for 6 hours/week for 10 weeks (Hart et al., 1988).

By comparing the maximum 8-hour SO₂ concentration of 0.176 µg/m³ with the lowest concentrations that cause plant injury, it can be shown that the amount of SO₂ in the park area is less than 0.1 percent of the most conservative concentration (200 µg/m³) that caused injury to SO₂-sensitive species.

The 24-hour and annual SO₂ concentrations predicted within the park due to the SGPC facility are 0.066 and 0.0055 µg/m³, respectively. These levels are much lower than those known to cause damage to test species. Jack pine seedlings exposed to SO₂ concentrations of 470 to 520 µg/m³ for 24 hours demonstrated inhibition of foliar lipid synthesis; however, this inhibition was reversible (Malhotra and Kahn, 1978). Black oak exposed to 1,310 µg/m³ SO₂ for 24 hours a day for 1 week demonstrated a 48 percent reduction in photosynthesis (Carlson, 1979). By comparison of these levels, it is apparent

that the modeled 24-hour incremental increase of SO₂ is well below (i.e., 0.01 percent) the concentrations that caused damage in SO₂-sensitive plants. The modeled annual incremental increase in SO₂ (0.0055 µg/m³) adds slightly to background levels of this gas and poses only a minimal threat to area vegetation.

Nitrogen Dioxide

Nitrogen dioxide (NO₂) is another emission of concern for the proposed plant expansion. This compound can injure plant tissue with symptoms usually appearing as irregular white to brown collapsed lesions between the leaf veins and near the margins. Conversely, non-injurious levels of NO₂ can be absorbed by plants, enzymatically transformed into ammonia, and incorporated into plant constituents such as amino acids (Matsumaru et al., 1979).

Plant damage can occur through either acute (short-term, high concentration) or chronic (long-term, relatively low concentration) exposure. For plants that have been determined to be more sensitive to NO₂ exposure than others, acute (1, 4, 8 hours) exposure caused 5 percent predicted foliar injury at concentrations ranging from 3,800 to 15,000 µg/m³ (Heck and Tingey, 1979). Chronic exposure of selected plants (some considered NO₂-sensitive) to NO₂ concentrations of 2,000 to 4,000 µg/m³ for 213 to 1,900 hours caused reductions in yield of up to 37 percent and some chlorosis (Zahn, 1975).

By comparison of published toxicity values for NO₂ exposure to short-term (i.e., 1-, 3-, and 8-hour averaging times) and long-term (annual averaging time) modeled concentrations, the possibility of plant damage in the park can be examined for both acute and chronic exposure situations, respectively. The 1-, 3-, and 8-hour estimated NO₂ concentrations due to the SGPC facility only at the point of maximum impact in the park area are 0.312, 0.221, and 0.116 µg/m³, respectively. These concentrations are less than 0.01 percent of the levels that cause foliar injury to sensitive plant species. For a chronic exposure, the annual estimated NO₂ concentration due to the facility only at the point of maximum impact in the park (0.0027 µg/m³) is less than 0.001 percent of the levels that caused minimal yield loss and chlorosis in plant tissue.

Although it has been shown that simultaneous exposure to SO₂ and NO₂ results in synergistic plant injury (Ashenden and Williams, 1980), the magnitude of this response is generally only 3 to 4 times greater than either gas alone and usually occurs at unnaturally high levels of each gas. Therefore, the concentrations within the park are still far below the levels that potentially cause plant injury for either acute or chronic exposure.

Particulate Matter

Although information pertaining to the effects of PM on plants is scarce, baseline concentrations are available (Mandoli and Dubey, 1988). Ten species of native Indian plants were exposed to levels of PM that ranged from 210 to 366 µg/m³ for an 8-hour averaging period. Damage in the form of a higher leaf area/dry weight ratio was observed at varying degrees for most plants tested. Concentrations of PM lower than 163 µg/m³ did not appear to be injurious to the tested plants.

By comparison of published toxicity values for PM exposure (i.e., 8-hour averaging time) concentrations, the possibility of plant damage in the park due to the project can be determined. The 8-hour estimated PM concentration due to the project only at the point of maximum impact in the park area is 0.19 µg/m³. This concentration is approximately 0.1 percent of the lower value that affected plant foliage. The extremely small additional impact the facility is predicted to have on the ENP will not cause any adverse affects to vegetation.

Carbon Monoxide

As with PM, information pertaining to the effects of CO on plants is scarce. The main effect of high concentrations of CO is the inhibition of cytochrome *c* oxidase, the terminal oxidase in the mitochondrial electron transfer chain. Inhibition of cytochrome *c* oxidase depletes the supply of ATP, the principal donor of free energy required for cell functions. However, this inhibition only occurs at extremely high concentrations of CO. Pollok et al. (1989) reported that exposure to CO:O₂ ratio of 25 (equivalent to an ambient CO concentration of 6.85 x 10⁶ µg/m³) resulted in stomatal closure in the leaves of the

sunflower (*Helianthus annuus*). Naik et al. (1992) reported cytochrome *c* oxidase inhibition in corn, sorghum, millet, and Guinea grass at CO:O₂ ratios of 2.5 (equivalent to an ambient CO concentration of $6.85 \times 10^5 \mu\text{g}/\text{m}^3$). These plants were considered the species most sensitive to CO-induced inhibition of cytochrome *c* oxidase. The predicted annual average CO impact due to the SGPC facility only at the ENP ($0.38 \mu\text{g}/\text{m}^3$) is well below these published effects levels.

Summary

In summary, the phytotoxic effects on the ENP from the SGPC facility emissions are expected to be minimal. It is important to note that the substances were evaluated with the assumption that 100 percent was available for plant uptake. This is rarely the case in a natural ecosystem.

8.2.3 IMPACTS TO WILDLIFE

A wide range of physiological and ecological effects to fauna has been reported for gaseous and particulate pollutants (Newman, 1981; Newman and Schreiber, 1988). The most severe of these effects have been observed at concentrations above the secondary ambient air quality standards. Physiological and behavioral effects have been observed in experimental animals at or below these standards. No observable effects to fauna are expected at concentrations below the values reported in Table 8-4.

The major air quality risk to wildlife in the United States is from continuous exposure to pollutants above the National Ambient Air Quality Standards. This occurs in non-attainment areas, e.g., Los Angeles Basin. Risks to wildlife also may occur for wildlife living in the vicinity of an emission source that experiences frequent upsets or episodic conditions resulting from malfunctioning equipment, unique meteorological conditions, or startup operations (Newman and Schreiber, 1988). Under these conditions, chronic effects (e.g., particulate contamination) and acute effects (e.g., injury to health) have been observed (Newman, 1981).

For impacts on wildlife, the lowest threshold values of SO₂, NO_x, and particulates which are reported to cause physiological changes are shown in Table 8-4. These values are up

to several orders of magnitude larger than maximum predicted concentrations for the Class I area. No effects on wildlife AQRVs from SO₂, NO_x, and particulates are expected. These results are considered indications of the risk of other air pollutant emissions predicted from the facility.

8.3 IMPACTS ON VISIBILITY

8.3.1 REGIONAL HAZE

Introduction

A change in visibility is characterized by either a change in the visual range, defined as the greatest distance that a large dark object can be seen, or by a change in the light-extinction coefficient (b_{ext}). The b_{ext} is the attenuation of light per unit distance due to the scattering and absorption by gases and particles in the atmosphere. A change in the extinction coefficient produces a perceived visual change that is measured by a visibility index called the deciview. The deciview (dv) is defined as:

$$dv = 10 \ln (1 + b_{exts} / b_{extb})$$

where b_{exts} is the extinction coefficient calculated for the source, and b_{extb} is the background extinction coefficient.

The source extinction coefficient is determined from NO_x, SO₂, and PM₁₀ emission increases from the facility. The background extinction coefficients for each area evaluated are based on existing ambient monitoring data. Based on predicted SO₄, NO₃, and PM₁₀ concentrations, the facility's emissions were compared to a 5 percent change in light extinction of the background levels. This is equivalent to a change in deciview of 0.5.

The modeling analysis determined the deciview change at the Everglades National Park, a PSD Class I area located 102 km from the SGPC facility.

8.3.2 ANALYSIS METHODOLOGY

Following the recommendations of the Interagency Workgroup on Air Quality Modeling (IWAQM) Phase II report, a level II screening analysis was performed using the

California Puff (CALPUFF) long-range transport model, along with an enhanced ISC meteorological data record from Palm Beach. The CALPUFF postprocessor model CALPOST was used to summarize the daily deciview values predicted with the CALPUFF model, and hourly relative humidity data from West Palm Beach.

CALPUFF was used in a manner recommended by the IWAQM Phase 2 Summary Report (EPA, 12/98). A summary of the recommended parameter settings used with CALPUFF are presented in Attachment D with the recommended parameter settings presented in Appendix B of the IWAQM Phase II Summary Report. The CALPUFF model was used in an ISC screening mode with an "enhanced" ISCST3 meteorological data set.

The following CALPUFF settings/values were implemented in the Level II screening analysis:

- Use of seven pollutant species of SO₂, SO₄, NO_x, HNO₃, NO₃, PM₁₀, and CO.
- Use of MESOPUFF II scheme for chemical transformation with CALPUFF default background concentrations
- Include both dry and wet deposition and plume depletion
- Use Agricultural, unirrigated land use; minimum mixing height of 50 m
- Use transitional plume rise, stack-tip downwash, and partial plume penetration
- Use puff plume element dispersion, PG/MP coefficients, rural mode, and ISC building downwash scheme
- Use partial plume path adjustment terrain effects
- Generate an hourly RH file for each year processed

8.3.3 EMISSION INVENTORY

Based on recommendations of the IWAQM Phase II Report, the increase in emissions due to the SGPCPC facility only were used in the air modeling analysis. Therefore, the emission rates used in the CALPUFF analysis for the facility Dryer/WHE are 2.82 g/s for SO₂; 2.18 g/s for NO_x; 149.10 g/s for CO, and 2.62 g/s for PM₁₀. The boiler had no increase net emissions due to current and future emission rates being equal. The pellet cooler emission rate for PM₁₀ was 0.61 g/s.

0.63 - 0.02 = 0.61

$$\begin{array}{r} 4.04 \\ -1.42 \\ \hline 2.62 \end{array}$$

$$\begin{array}{r} 5.29 \\ -2.47 \\ \hline 2.82 \end{array}$$

SGPCPC
Table
602
Pellet Dryer

8.3.4 BUILDING WAKE EFFECTS

The air modeling analysis included the SGPC facility building dimensions to account for the effects of building-induced downwash on the emission sources. Dimensions for all significant building structures were processed with the Building Profile Input Program (BPIP), Version 95086, and were included in the CALPUFF model.

8.3.5 RECEPTOR LOCATIONS

Receptors were located along a circle that was centered over the SGPC facility and with a radius equal to the minimum distance between the SGPC facility and ENP (98.5 km). The circle was comprised of 360 polar receptors, spaced at 1-degree intervals. Because the area's terrain is flat, all receptors were assumed to be at the SGPC facility's elevation.

8.3.6 BACKGROUND VISUAL RANGE AND RELATIVE HUMIDITY FACTORS

Daily background extinction coefficients were calculated using the CALPOST model and hourly relative humidity data provided by the CALPUFF model. Annual dry-hygroscopic and non-hygroscopic extinction coefficients were provided by the National Park Service. For the ENP, the dry and non-hygroscopic values are 5.59 and 14.91 $\mu\text{g}/\text{m}^3$, respectively. The extinction values are based on the average of the cleanest measured 20-percentile days. For input to CALPOST, the dry hygroscopic extinction was divided by three and represented as the monthly sulfate background. The non-hygroscopic extinction was represented as the monthly ~~soot~~ background.

Summary of Monthly Background Extinctions ($\mu\text{g}/\text{m}^3$) for ENP

Modeled Area	Dry-Hygroscopic	Non-Hygroscopic
Everglades National Park	1.86	14.91

8.3.7 METEOROLOGICAL DATA

A 5-year data record was used which consisted of hourly surface observations and twice-daily mixing height data obtained from National Weather Service (NWS) offices located in Fort Myers and Ruskin, respectively. The data record was for the years 1987 through

1991. The surface and upper data were preprocessed into an ASCII modeling format by EPA's PCRAMMET meteorological preprocessing program. An anemometer height of 20 feet was used for the modeling analysis.

Additional meteorological parameters were added to the meteorological data records for use with the CALPUFF model. The additional parameters include friction velocity, Monin-Obukhov length, and surface roughness used for calculating dry deposition; precipitation type code and precipitation rate used for calculating wet deposition, and short-wave solar radiation and relative humidity use for calculating chemical transformation rates. The dry deposition parameters were added to the meteorological data records using the PCRAMMET model in dry deposition mode. Using the guidance provided in Section 3.1 of the PCRAMMET User's Manual (8/98), the following input values were selected:

1. Surface roughness at both application and measurement sites: 0.15 m
2. Noontime Albedo: 0.14
3. Bowen Ratio: 0.8
4. Anthropogenic Heat flux: 0
5. Minimum Monin-Obukhov Length: 2 m
6. Fraction of Net Radiation Absorbed by Ground: 0.15

Hourly precipitation amounts, relative humidity and short-wave radiation values were added separately to the meteorological data set. These parameters were obtained from the West Palm Beach surface data available from Solar and Meteorological Surface Observation Network (SAMSON) data.

Based on the precipitation classification scheme provided in the CALPUFF User's Manual (Table 2-11) (7/95), each hour's precipitation code was set to 0 or 2. An hour in which no precipitation occurred received a code of 0. If precipitation occurred the code was set to 2. All precipitation is in the form of rain.

8.3.8 CHEMICAL TRANSFORMATION

Conservative chemical transformation assumptions were assumed for the air modeling analysis. It is assumed that all NO_x emissions are initially NO₂. The CALPUFF model is then used to predict 24-hour SO₄, NO₃, and PM₁₀ concentrations and f(RH). Daily deciviews are then calculated by CALPUFF based on the daily impacts of the proposed project at the ENP.

Results

The maximum predicted change in visibility of ~~0.63~~ deciviews is well below the criteria of ~~1.04 percent or 0.104~~ deciview. Therefore, it is concluded that the facility will not result in a significant impact on the visibility at the ENP.

0.104 dv or 1.04%

5.0% or .5 dv Correct this

Modeling is correct

*1986 0.104
PST VIS 87*

Table 8-1. Maximum Predicted Pollutant Impacts Due to Project Only at PSD Class I Area, SG CPC

Pollutant	Concentration in ($\mu\text{g}/\text{m}^3$) for Averaging Times				
	Annual	24-Hour	8-Hour	3-Hour	1-Hour
Sulfur Dioxide (SO_2)	0.0055	0.066	0.176	0.324	0.436
Nitrogen Oxides (NC)	0.0027	0.042	0.116	0.221	0.312
Particulates (PM_{10})	0.0078	0.087	0.190	0.330	0.540
Carbon Monoxide (C)	0.380	4.2	10.3	18.9	39.50

Table 8-2. SO₂ Effects Levels for Various Plant Species

Plant Species	Observed Effect Level ($\mu\text{g}/\text{m}^3$)	Exposure (Time)	Reference
Sensitive to tolerant	920 (20 percent displayed visible injury)	3 hours	McLaughlin and Lee, 1974
Lichens	200-400	6 hr/wk for 10 weeks	Hart <i>et al.</i> , 1988
Cypress, slash pine, live oak, mangrove	1,300	8 hours	Woltz and Howe, 1981
Jack pine seedlings	470-520	24 hours	Malhotra and Kahn, 1978
Black oak	1,310	Continuously for 1 week	Carlson, 1979

Table 8-3. Sensitivity Groupings of Vegetation Based on Visible Injury at Different SO₂ Exposures^a

Sensitivity Grouping	SO ₂ Concentration		Plants
	1-Hour	3-Hour	
Sensitive	1,310 - 2,620 $\mu\text{g}/\text{m}^3$ (0.5 - 1.0 ppm)	790 - 1,570 $\mu\text{g}/\text{m}^3$ (0.3 - 0.6 ppm)	Ragweed Legumes Blackberry Southern pines Red and black oaks White ash Sumacs
Intermediate	2,620 - 5,240 $\mu\text{g}/\text{m}^3$ (1.0 - 2.0 ppm)	1,570 - 2,100 $\mu\text{g}/\text{m}^3$ (0.6 - 0.8 ppm)	Maples Locust Sweetgum Cherry Elms Tuliptree Many crop and garden species
Resistant	>5,240 $\mu\text{g}/\text{m}^3$ (>2.0 ppm)	>2,100 $\mu\text{g}/\text{m}^3$ (>0.8 ppm)	White oaks Potato Upland cotton Corn Dogwood Peach

^a Based on observations over a 20-year period of visible injury occurring on over 120 species growing in the vicinities of coal-fired power plants in the southeastern United States.

Source: EPA, 1982a.

Table 8-4. Examples of Reported Effects of Air Pollutants on Animals at Concentrations Below National Secondary Ambient Air Quality Standards

Pollutant	Reported Effect	Concentration ($\mu\text{g}/\text{m}^3$)	Exposure
Sulfur Dioxide ¹	Respiratory stress in guinea pigs	427 to 854	1 hour
	Respiratory stress in rats	267	7 hours/day; 5 day/week for 10 weeks
	Decreased abundance in deer mice	13 to 157	Continually for 5 months
Nitrogen Dioxide ^{2,3}	Respiratory stress in mice	1,917	3 hours
	Respiratory stress in guinea pigs	96 to 958	8 hours/day for 122 days
Particulates ¹	Respiratory stress, reduced respiratory disease defenses	120 PbO_3	continually for 2 months
	Decreased respiratory disease defenses in rats, same with hamsters	100 NiCl_2	2 hours

Source:

¹ Newman and Schreiber, 1988.

² Gardner and Graham, 1976.

³ Trzeciak et al., 1977.

9.0 REFERENCES

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ATTACHMENT A

PEEL DRYER TEST DATA

Table A-1. SO₂/PM Source Testing Conducted on Citrus Peel Dryer and Citrus Pellet Mill, Southern Gardens

Date	Heat Input	Production Rate		PM Emissions			SO ₂ Emissions		
	Rate (MMBtu/hr)	(TPH PP)	(TPH BDP)	(lb/hr)	(gr/dscf)	(lb/ton BDP)	(lb/hr)	lb/MMBtu	lb/ton BDP
<u>Citrus Peel Dryer</u>									
5/26/94	35.0	43.33	14.99 ^a	3.15	0.026	0.21	4.31	0.12	0.29
2/24/95	50.3	39.08	13.52 ^a	4.16	0.026	0.31	5.75	0.11	0.43
4/2/96	78.3	33.18	11.48 ^a	7.07	0.038	0.62	10.25	0.12	0.89
3/5/97	45.9	43.30	14.99	6.00	0.037	0.40	21.85	0.48	1.46
4/1/98	69.7	45.62	15.09	10.18	0.062	0.67	11.48	0.17	0.76
4/6/99	65.8	48.82	13.87	6.84	0.046	0.49	10.26	0.16	0.74
4/18/00	75.7	46.69	13.72	11.34	0.060	0.83	19.62	0.23	1.43
<u>Citrus Pellet Mill</u>									
3/4/97	--	--	14.78 ^b	0.19	0.0028	--	--	--	--

PP = Pressed peel

BDP = Bone dry peel

^a Actual data not available; used same ratio of pressed peel to bone dry peel from 1997 testing^b Based on 16.8 TPH pellets with an assumed moisture of 12%.

Table A-2. Summary of Source Testing Conducted on Peel Dryer at Southern Gardens Citrus Processing Facility

Pollutant	EPA Test Method	12/21/95 Process Rate = 12.90 TPH BDP			03/05/97 Process Rate = 14.99 TPH BDP Heat Input = 45.9 MMBtu/hr			04/07/99 Process Rate = 13.16 TPH BDP Heat Input = 52.9 MMBtu/hr			04/12/00 Process Rate = 14.27 TPH BDP Heat Input = 79.5 MMBtu/hr		
		lb/hr	ppm	lb/ton BDP ^a	lb/hr	ppm	lb/ton BDP ^b	lb/hr	ppm	lb/ton BDP ^c	lb/hr	ppm	lb/ton BDP ^d
VOC (as C)	25	194.1	4,224	15.05	--	--	--	--	--	--	279.7	6,995	19.60
VOC (as propane)	25A	118.9 ^a	2,168	^a	367.1	2,234	24.49	267	2,407	20.28	212.67	1,460	14.90
CH4	25A	--	5	--	0.1	2	--	0.8	18	0.06		9	0.0
CO	10	128.2	1,195	9.94	190.1	2,294	12.68	164	2,331	12.46	339.0	3,685	23.76
NOx	7E	12.5	71	0.97	--	--	--	5.9	51	0.45	10.4	69	0.73
O2	3A	--	13.2%	--	--	12.6%	--	--	9.9%	--	--	8.7%	--

BDP = Bone dry peel

^a Testing was performed using modified Method 25 A using condensate trap, and is not considered to be valid measurement.

^b

^c

^d

ATTACHMENT B

BACT DETERMINATION FOR BOILER NOS. 1 AND 2 - FEBRUARY 1992

FROM DER FT MYERS

BEST AVAILABLE COPY



Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901

Virginia B. Wetherell
Secretary

FAX TRANSMITTAL LETTER

TO:

NAME: Paul Wesson DATE: 9-19-95
 AGENCY: BACT Southern Gardens For Boilers 1+2
 TELEPHONE #: (904)336-5600 FAX #: 904-336-6603
 NUMBER OF PAGES (INCLUDING COVER SHEET): 3

FROM:

NAME: David Knewler
 DEPT. OF ENVIRONMENTAL PROTECTION - SO. DISTRICT, FT. MYERS
 TELEPHONE # (813) 332-6975 FAX # (813) 332-6969
 SUNCOM # 748-6975 SUNCOM FAX # 748-6969

TRANSMITTAL ON A NEC/NEFAX 340

IF ANY PAGES ARE NOT CLEARLY RECEIVED, PLEASE CALL IMMEDIATELY!

SENDER'S NAME: Marcin

COMMENTS:

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FEB 21 1992

Best Available Control Technology (BACT) Determination
Southern Gardens Citrus Processing Corp.
Hendry County

The applicant plans to construct two 800 HP Johnson boilers at a new citrus processing facility in Hendry County. The 33.44 MMBtu/hr boilers will operate up to 3600 hours per year for a 150 day operating season.

This BACT determination is required for the source as set forth in the Florida Administrative Code Rule 17-2.600(6) - Emission Limiting and Performance Standards.

BACT Determination Requested by the Applicant:

Particulate and sulfur dioxide emissions to be controlled by the firing of No. 6 fuel oil with a maximum of 0.7 percent sulfur, by weight.

Date of Receipt of a BACT Application:

December 19, 1991

Review Group Members:

The determination was based upon comments received from the Permitting and Standards Section and the South District.

BACT Determination by DER:

The amount of particulate and sulfur dioxide emissions from the boilers will be limited by the firing of No. 2 fuel oil with a maximum of 0.5 percent sulfur, by weight.

BACT Determination Rational:

Sulfur in fuel is a primary air pollution concern, since most of the fuel sulfur becomes sulfur dioxide and particulate emissions from oil burning are related to sulfur content.

Part 60, subpart Dc, section 60.42c(d) of the Federal Register states, "...no owner or operator of an affected facility that combusts oil shall cause to be discharged ...any gases that contain sulfur dioxide in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil ...that contains greater than 0.5 weight percent sulfur." This standard applies to all units for which construction, modification, or reconstruction is commenced after June 9, 1989 and that have a maximum design heat input capacity of 29 MW (100 MMBtu/hr) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

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Southern Gardens Citrus
Page 2 of 2

Based on the information presented in this analysis, the Department has determined that BACT for the boilers is represented by firing No. 2 fuel oil with a sulfur content not to exceed 0.5 percent, by weight

Details of the Analysis May be Obtained by Contacting:

Michael Hewett, BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommend by:

C. H. Fancy

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

February 4, 1992
Date

Approved by:

Steve Smallwood

Steve Smallwood, P.E., Director
Division of Air Resource Management

February 17, 1992
Date

ATTACHMENT C

AIR MODELING ANALYSIS DIRECTION-SPECIFIC BUILDING DATA

DATE : 06/30/00
 TIME : 17:21:32
 BPIP data for Southern Gardens 8/30/99

=====
 BPIP PROCESSING INFORMATION:
 =====

The ST flag has been set for processing for an ISCST2 run.

Inputs entered in feet will be converted to meters using
 a conversion factor of 0.3048. Output will be in meters.

UTMP is set to UTMN. The input is assumed to be in a local
 X-Y coordinate system as opposed to a UTM coordinate system.
 True North is in the positive Y direction.

Plant north is set to 0.00 degrees with respect to True North.

BPIP data for Southern Gardens 8/30/99

PRELIMINARY* GEP STACK HEIGHT RESULTS TABLE
 (Output Units: meters)

Stack Name	Stack Height	Stack-Building Base Elevation Differences	GEP** EQN1	Preliminary* GEP Stack Height Value
DRYER/WH	38.10	0.00	34.29	65.00
BOILERS	16.76	0.00	34.29	65.00
PELLET	12.19	0.00	34.29	65.00

* Results are based on Determinants 1 & 2 on pages 1 & 2 of the GEP Technical Support Document. Determinant 3 may be investigated for additional stack height credit. Final values result after Determinant 3 has been taken into consideration.

** Results were derived from Equation 1 on page 6 of GEP Technical Support Document. Values have been adjusted for any stack-building base elevation differences.

Note: Criteria for determining stack heights for modeling emission limitations for a source can be found in Table 3.1 of the GEP Technical Support Document.

BPIP (Dated: 95086)

DATE : 06/30/00
 TIME : 17:21:32

BPIP data for Southern Gardens 8/30/99

BPIP output is in meters

SO BUILDHGT DRYER/WH	12.50	12.50	12.50	12.50	12.50	12.50
SO BUILDHGT DRYER/WH	12.50	12.50	12.50	12.50	12.50	13.72
SO BUILDHGT DRYER/WH	13.72	13.72	13.72	13.72	13.72	12.50
SO BUILDHGT DRYER/WH	12.50	12.50	12.50	12.50	12.50	12.50
SO BUILDHGT DRYER/WH	12.50	12.50	12.50	12.50	12.50	13.72
SO BUILDHGT DRYER/WH	13.72	13.72	13.72	13.72	13.72	12.50
SO BUILDWID DRYER/WH	53.68	53.90	52.49	49.49	44.98	39.11
SO BUILDWID DRYER/WH	32.04	24.01	15.24	24.01	32.04	18.14
SO BUILDWID DRYER/WH	20.57	22.37	23.50	23.91	23.59	51.82
SO BUILDWID DRYER/WH	53.68	53.90	52.49	49.49	44.98	39.11
SO BUILDWID DRYER/WH	32.04	24.01	15.24	24.01	32.04	18.14
SO BUILDWID DRYER/WH	20.57	22.37	23.50	23.91	23.59	51.82
SO BUILDHGT BOILERS	7.92	7.92	7.92	7.92	7.92	7.92
SO BUILDHGT BOILERS	7.92	12.50	12.50	12.50	13.72	13.72
SO BUILDHGT BOILERS	7.92	7.92	7.92	7.92	7.92	7.92

SO BUILDHGT BOILERS	7.92	7.92	7.92	7.92	7.92	7.92
SO BUILDHGT BOILERS	7.92	7.92	7.92	7.92	7.92	7.92
SO BUILDHGT BOILERS	7.92	7.92	7.92	7.92	7.92	7.92
SO BUILDWID BOILERS	20.04	24.22	27.68	30.29	31.98	32.70
SO BUILDWID BOILERS	32.42	24.01	15.24	24.01	15.16	18.14
SO BUILDWID BOILERS	31.98	30.29	27.68	24.22	20.04	15.24
SO BUILDWID BOILERS	20.04	24.22	27.68	30.29	31.98	32.70
SO BUILDWID BOILERS	32.42	31.16	28.96	31.16	32.42	32.70
SO BUILDWID BOILERS	31.98	30.29	27.68	24.22	20.04	15.24

SO BUILDHGT PELLET	7.92	7.92	7.92	7.92	7.92	7.92
SO BUILDHGT PELLET	7.92	12.50	12.50	12.50	13.72	13.72
SO BUILDHGT PELLET	13.72	7.92	7.92	7.92	7.92	7.92
SO BUILDHGT PELLET	7.92	7.92	7.92	7.92	7.92	7.92
SO BUILDHGT PELLET	7.92	0.00	0.00	0.00	7.92	7.92
SO BUILDHGT PELLET	7.92	7.92	7.92	7.92	7.92	7.92
SO BUILDWID PELLET	20.04	24.22	27.68	30.29	31.98	32.70
SO BUILDWID PELLET	32.42	24.01	15.24	24.01	15.16	18.14
SO BUILDWID PELLET	20.57	30.29	27.68	24.22	20.04	15.24
SO BUILDWID PELLET	20.04	24.22	27.68	30.29	31.98	32.70
SO BUILDWID PELLET	32.42	0.00	0.00	0.00	32.42	32.70
SO BUILDWID PELLET	31.98	30.29	27.68	24.22	20.04	15.24

ATTACHMENT D

CALPUFF PARAMETER SETTINGS

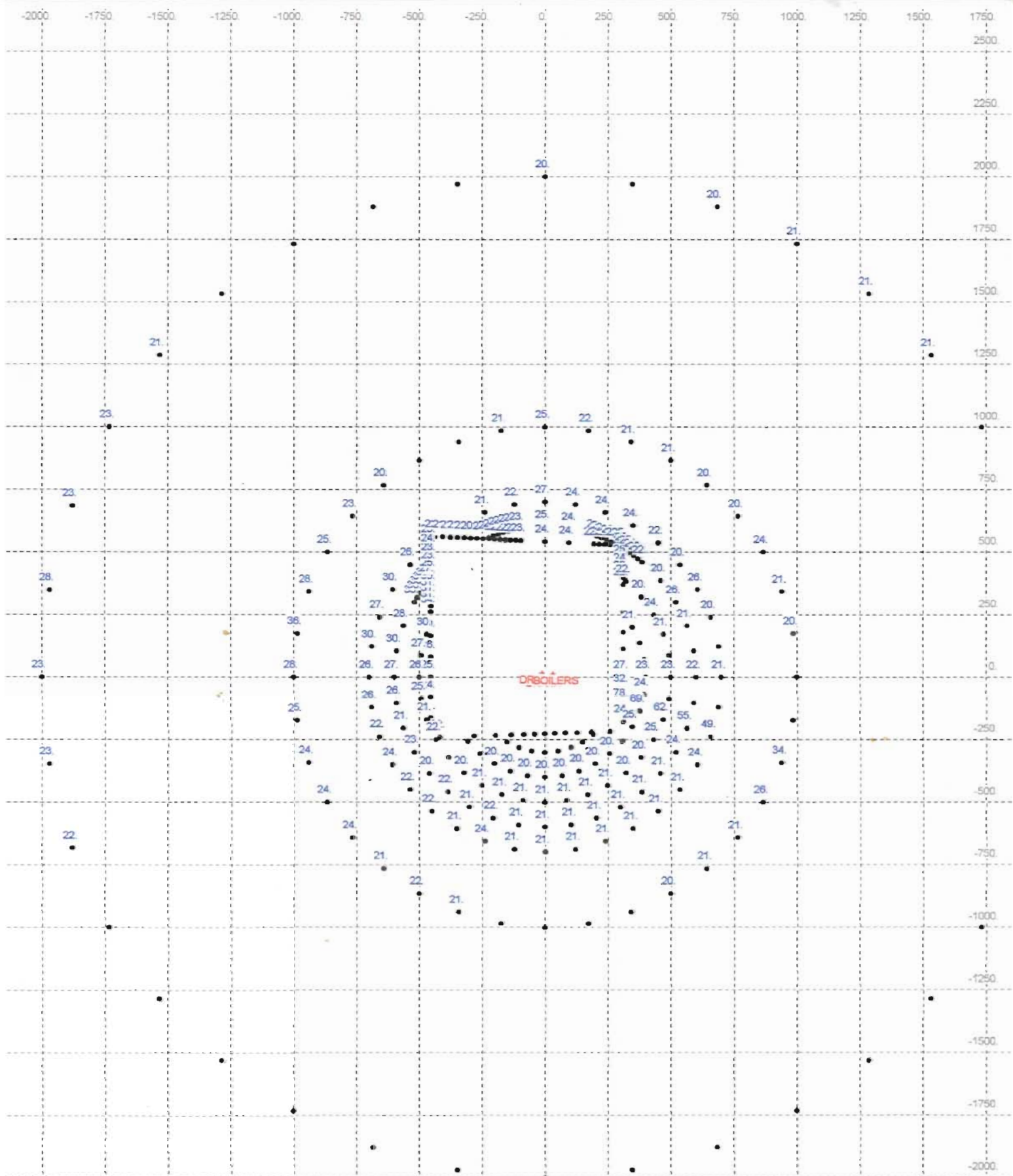
Table C-1. IWAQM Phase II Calpuff Default Options, Southern Gardens						
		Sorted by Calpuff.lst order				
Calpuff.lst						
Input Group						Modeled
Number	Description	Variable	Seq	Description	Default Value	Value
1	Run Control	METRUN	1	Do we run all periods (1) or a subset (0)?	0	0
1		IBYR	2	Beginning year	User Defined	1987
1		IBMO	3	Beginning month	User Defined	1
1		IBDY	4	Beginning day	User Defined	1
1		IBHR	5	Beginning hour	User Defined	1
1		IRLG	5	Length of run (hours)	User Defined	8760
1		NSPEC	6	Number of species modeled (for MESOPUFF II chemistry)	5	7
1		NSE	7	Number of species emitted	3	4
1		ITEST	8		2	2
1		MRESTART	9	Restart options (0 = no restart) allows splitting runs into smaller segments	0	0
1		NRESPD	10		0	0
1		METFM	11	Format of input meteorology (1 = CALMET, 2 = ISC)	2	2
1		AVET	12	Averaging time lateral dispersion parameters (minutes)	60	60
2	Tech Options	MGAUSS	1	Near-field vertical distribution (1 = Gaussian)	1	1
2		MCTADJ	2	Terrain adjustments to plume path (3 = Plume path)	3	3
2		MCTSG	3	Do we have subgrid hills? (0 = No) allows CTDM-like treatment for subgrid scale hills	0	0
2		MSLUG	4	Near-field puff treatment (0 = No slugs)	0	0
2		MTRANS	5	Model transitional plume rise? (1 = Yes)	1	1
2		MTIP	6	Treat stack tip downwash? (1 = Yes)	1	1
2		MSHEAR	7	Treat vertical wind shear? (0 = No)	0	0
2		MSPLIT	8	Allow puffs to split? (0 = No)	0	0
2		MCHEM	9	MESOPUFF-II Chemistry? (1 = Yes)	1	1
2		MWET	10	Model wet deposition? (1 = Yes)	1	1
2		MDRY	11	Model dry deposition? (1 = Yes)	1	1
2		MDISP	12	Method for dispersion coefficients (3 = PG & MP)	3	3
2		MTURBVW	13	Turbulence characterization? (Only if MDISP = 1 or 5)	3	NA
2		MDISP2	14	Backup coefficients (Only if MDISP = 1 or 5)	3	NA
2		MROUGH	15	Adjust PG for surface roughness? (0 = No)	0	0
2		MPARTL	16	Model partial plume penetration? (0 = No)	1	1
2		MTINV	17	Elevated inversion strength (0 = compute from data)	0	0
2		MPDF	18	Use PDF for convective dispersion? (0 = No)	0	0
2		MSGTIBL	19	Use TIBL module? (0 = No) allows treatment of subgrid scale coastal areas	0	0
2		MREG	20	Regulatory default checks? (1 = Yes)	1	0
3	Species List	CSPECn		Names of species modeled (for MESOPUFF II must be SO2-SO4-NOX-HNO3-NO3)	User Defined	ALL 7
3		Specie Groups		Grouping of species if any	User Defined	NA

Table C-1. IWAQM Phase II Calpuff Default Options, Southern Gardens						
Sorted by Calpuff.lst order						
Calpuff.lst						
Input Group						
Number	Description	Variable	Seq	Description	Default Value	Modeled Value
3		Specie Names		Manner species will be modeled	User Defined	DEPOS.
4	Grid Control	NX	1	Number of east-west grids of input meteorology	User Defined	2
4		NY	2	Number of north-south grids of input meteorology	User Defined	2
4		NZ	3	Number of vertical layers of input meteorology	User Defined	1
4		DGRIDKM	4	Meteorology grid spacing (km)	User Defined	178
4		ZFACE	5	Vertical cell face heights of input meteorology	User Defined	0;5000
4		XORIGKM	6	Southwest corner (east-west) of input User	Defined meteorology	-178
4		YORIGIM	7	Southwest corner (north-south) of input User	Defined meteorology	-178
4		IUTMZN	8	UTM zone	User Defined	0
4		XLAT	9	Latitude of center of meteorology domain	User Defined	26.7
4		XLONG	10	Longitude of center of meteorology domain	User Defined	81.1
4		XTZ	11	Base time zone of input meteorology	User Defined	5
4		IBCOMP	12	Southwest X-index of computational domain	User Defined	1
4		JBCOMP	13	Southwest Y-index of computational domain	User Defined	1
4		IECOMP	14	Northeast X-index of computational domain	User Defined	2
4		JECOMP	15	Northeast Y-index of computational domain	User Defined	2
4		LSAMP	16	Use gridded receptors? (T = Yes)	F	F
4		IBSAMP	17	Southwest X-index of receptor grid	User Defined	0
4		JBSAMP	18	Southwest Y-index of receptor grid	User Defined	0
4		IESAMP	19	Northeast X-index of receptor grid	User Defined	0
4		JESAMP	20	Northeast Y-index of receptor grid	User Defined	0
4		MESHDN	21	Gridded recpetor spacing = DGRIDKM/MESHDN	1	1
5	Output Options	ICON	1	Output concentrations? (1 = Yes)	1	1
5		IDRY	2	Output dry deposition flux? (1 = Yes)	1	0
5		IWET	3	Output wet deposition flux? (1 = Yes)	1	0
5		IVIS	4	Output RH for visibility calculations (1 = Yes)	1	1
5		LCOMPRS	5	Use compression option in output? (T = Yes)	T	T
5		ICPRT	6	Print concentrations? (0 = No)	0	0
5		IDPRT	7	Print dry deposition fluxes (0 = No)	0	0
5		IWPRT	8	Print wet deposition fluxes (0 = No)	0	0
5		ICFRQ	9	Concentration print interval (1 = hourly)	1	24
5		IDFRQ	10	Dry deposition flux print interval (1 = hourly)	1	1
5		IWFRQ	11	Wet deposition flux print interval (1 = hourly)	1	1
5		IPRTU	12	Print output units (1 = g/m**3; g/m**2/s; 3 = ug/m3, ug/m2/s)	1	3
5		IMESG	13	Status messages to screen? (1 = Yes)	1	1

Table C-1. IWAQM Phase II Calpuff Default Options, Southern Gardens						
Sorted by Calpuff.lst order						
Calpuff.lst						
Input Group						
Number	Description	Variable	Seq	Description	Default Value	Modeled Value
5		LDEBUG	14	Turn on debug tracking? (F = No)	F	F
5		NPFDEB	15	(Number of puffs to track)	(1)	1
5		NN1	16	(Met. Period to start output)	(1)	1
5		NN2	17	(Met. Period to end output)	(10)	10
7	Dry Dep Chem	Dry Gas Dep		Chemical parameters of gaseous deposition species	User Defined	DEFAULT
8	Dry Dep Size	Dry Part. Dep		Chemical parameters of particulate deposition species	User Defined	DEFAULT
9	Dry Dep Misc	RCUTR	1	Reference cuticle resistance (s/cm)	30	30
9		RGR	2	Reference ground resistance (s/cm)	10	10
9		REACTR	3	Reference reactivity	8	8
9		NINT	4	Number of particle-size intervals	9	9
9		IVEG	5	Vegetative state (1 = active and unstressed)	1	1
10	Wet Dep	Wet Dep		Wet deposition parameters	User Defined	
11	Chemistry	MOZ	1	Ozone background? (0 = constant background value; 1 = read from ozone.dat)	1	0
11		BCKO3	2	Ozone default (ppb) (Use only for missing data)	80	80
11		BCKNH3	3	Ammonia background (ppb)	10	10
11		RNITE1	4	Nighttime SO2 loss rate (%/hr)	0.2	0.2
11		RNITE2	5	Nighttime NOx loss rate (%/hr)	2	2
11		RNITE3	6	Nighttime HNO3 loss rate (%/hr)	2	2
12	Dispersion	SYTDEP	1	Horizontal size (m) to switch to time dependence	550	550
12		MHFTSZ	2	Use Heffter for vertical dispersion? (0 = No)	0	0
12		JSUP	3	PG Stability class above mixed layer	5	5
12		CONK1	4	Stable dispersion constant (Eq 2.7-3)	0.01	0.01
12		CONK2	5	Neutral dispersion constant (Eq 2.7-4)	0.1	0.1
12		TBD	6	Transition for downwash algorithms (0.5 = ISC)	0.5	0.5
12		IURB1	7	Beginning urban landuse type	10	10
12		IURB2	8	Ending urban landuse type	19	19
12		ILANDUIN	9	Land use type (20 = Unirrigated agricultural land)	(20)	20
12		ZOIN	10	Roughness length (m)	(0.25)	0.25
12		XLAIN	11	Leaf area index	(3)	3
12		ELEVIN	12	Met. Station elevation (m above MSL)	(0)	0
12		XLATIN	13	Met. Station North latitude (degrees)	(-999)	-999

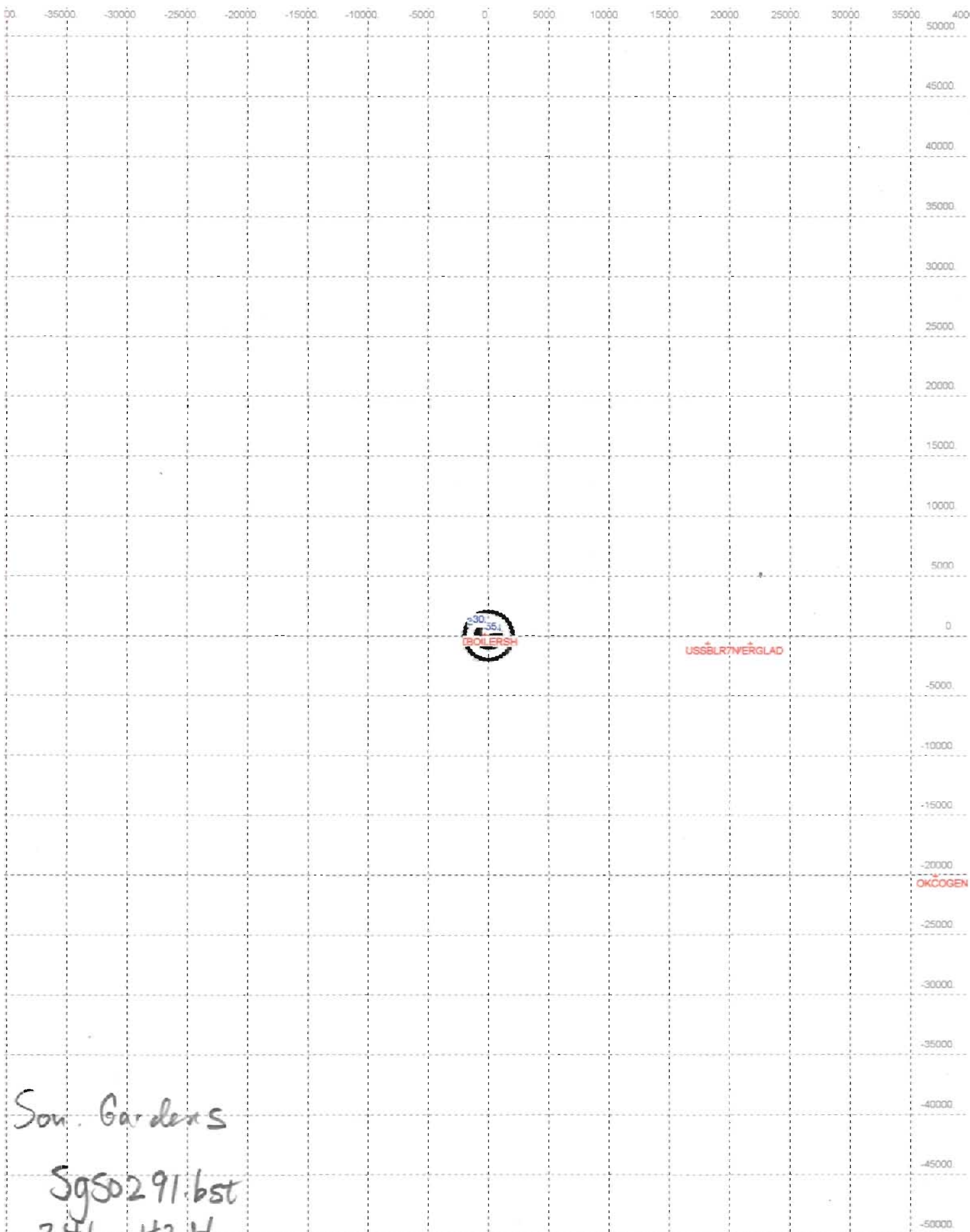
Table C-1. IWAQM Phase II Calpuff Default Options, Southern Gardens						
Sorted by Calpuff.lst order						
Calpuff.lst						
Input Group						Modeled
Number	Description	Variable	Seq	Description	Default Value	Value
12		XLONIN	14	Met. Station West longitude (degrees)	(-999)	-999
12		ANEMHT	15	Anemometer height of ISC meteorological data (m)	(10)	10.1
12		ISIGMAV	16	Lateral turbulence (Not used with ISC meteorology)	(1)	NA
12		IMIXCTDM	17	Mixing heights (Not used with ISC meteorology)	(1)	NA
12		XXMLEN	18	Maximum slug length in units of DGRIDKM	1	1
12		XSAMLEN	19	Maximum puff travel distance per sampling step (units of DGRIDKM)	1	1
12		MXNEW	20	Maximum number of puffs per hour	99	99
12		MXSAM	21	Maximum sampling steps per hour	99	99
12		NCOUNT	22	Iterations when computing Transport Wind (Calmet & Profile Winds)	(2)	2
12		SYMIN	23	Minimum lateral dispersion of new puff (m)	1	1
12		SZMIN	24	Minimum vertical dispersion of new puff (m)	1	1
12		SVMIN	25	Array of minimum lateral turbulence (m/s)	6 * 0.50	6*0.50
12		SWMIN	26	Array of minimum vertical turbulence (m/s)	0.20,0.12,0.08,0.06,0.03,0.016	SAME
12		CDIV (1), (2)	27	Divergence criterion for dw/dz (1/s)	0.01 (0.0,0.0)	0.0,0.0
12		WSCALM	28	Minimum non-calm wind speed (m/s)	0.5	0.5
12		XMAXZI	29	Maximum mixing height (m)	3000	3000
12		XMINZI	30	Minimum mixing height (m)	50	50
12		WSCAT	31	Upper bounds 1st 5 wind speed classes (m/s)	1.54,3.09,5.14,8.23,10.8	SAME
12		PLX0	32	Wind speed power-law exponents	0.07,0.07,0.10,0.15,0.35,0.55	SAME
12		PTGO	33	Potential temperature gradients PG E and F (deg/km)	0.020,0.035	SAME
12		PPC	34	Plume path coefficients (only if MCTADJ = 3)	0.5,0.5,0.5,0.5,0.35,0.35	SAME
12		SL2PF	35	Maximum Sy/puff length	10	10
12		NSPLIT	36	Number of puffs when puffs split	3	3
12		IRESPLIT	37	Hours when puff are eligible to split	User Defined	HR 17=1
12		ZISPLIT	38	Previous hour's mixing height(minimum)(m)	100	100
12		ROLDMAX	39	Previous Max mix ht/current mix ht ratio must be less then this value for puff to split	0.25	0.25
12		EPSSLUG	40	Convergence criterion for slug sampling integration	1.00E-04	1.0E-04
12		EPSAREA	41	Convergence criterion for area source integration	1.00E-06	1.0E-06
13	Point Source	NPT1	1	Number of point sources	User Defined	3
13		IPTU	2	Units of emission rates (1 = g/s)	1	1
13		NSPT1	3	Number of point source-species combinations	0	0
13		NPT2	4	Number of point sources with fully variable emission rates	0	0
13		Point Sources		Point sources characteristics	User Defined	VAR
14	Area Source	Area Sources		Area sources characteristics	User Defined	NA

Table C-1. IWAQM Phase II Calpuff Default Options, Southern Gardens						
		Sorted by Calpuff.lst order				
Calpuff.lst						
Input Group						
Number	Description	Variable	Seq	Description	Default Value	Modeled Value
15	Volume Source	Volume		Volume sources characteristics	User Defined Sources	NA
16	Line Source	Line Sources		Buoyant lines source characteristics	User Defined	NA
17	Receptors	NREC		Number of user defined receptors	User Defined	360
17		Receptor Data		Location and elevation (MSL) of receptors	User Defined	VAR
Legend						
	DEPOS.	With Deposition				
	DEFAULT	Uses defaults				
	VAR	Variable Input				
	NA	Not Applicable				
	SAME	Same as recommended				



DROGERS

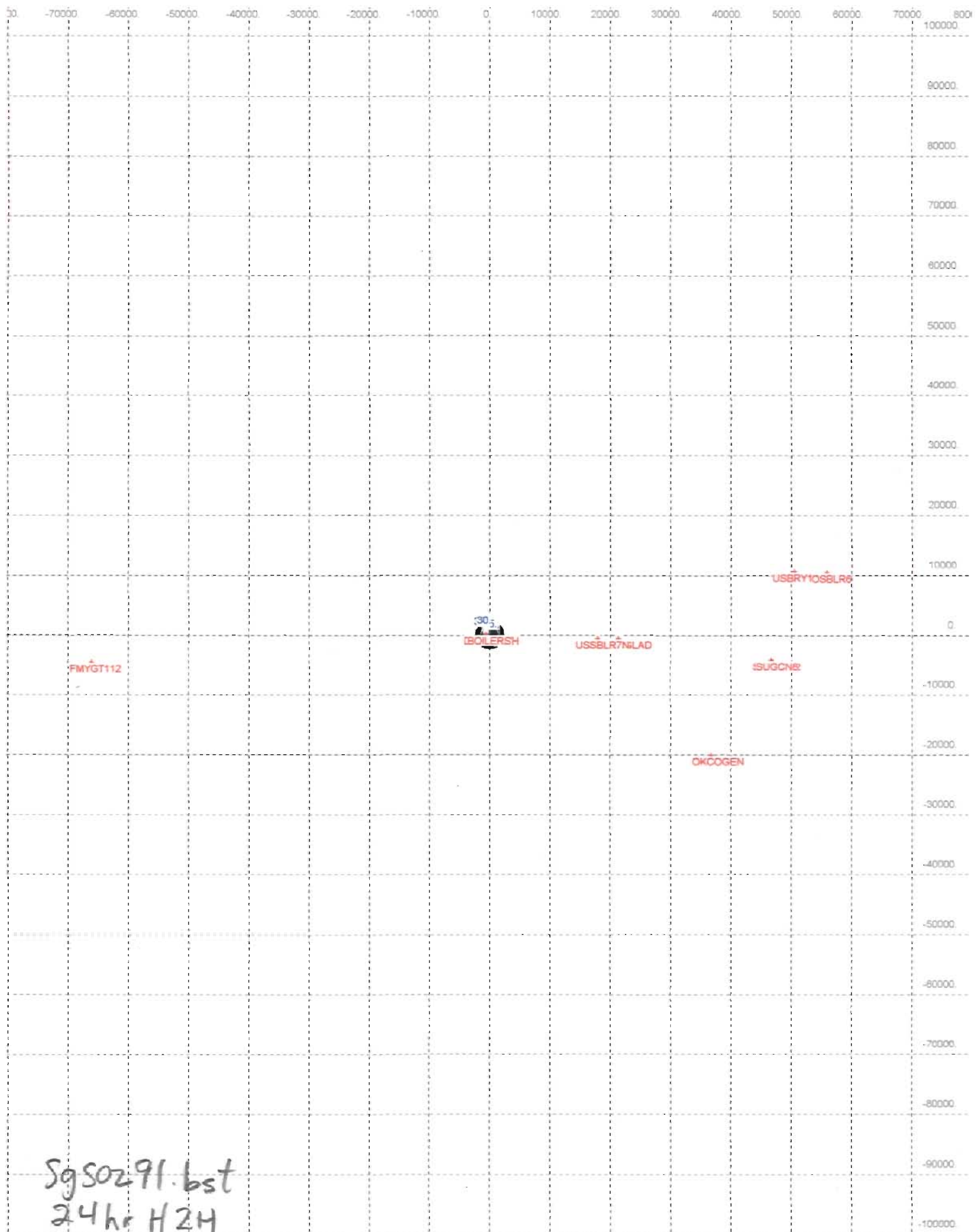
Sr Gardens
 Sg 50291. bst
 24 hr H 2M
 scale 1" = 500m



Son. Gardens

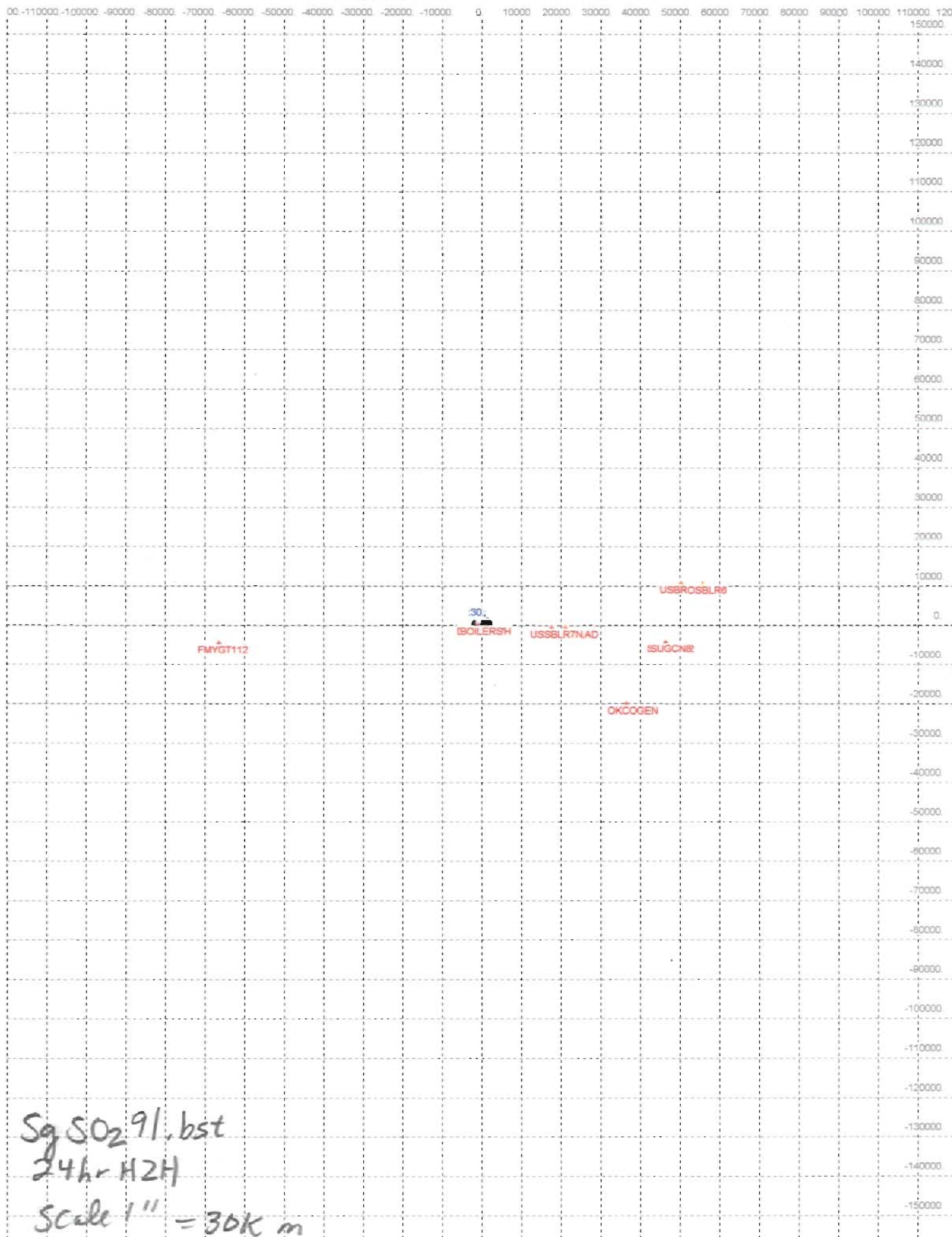
Sg50291.bst
24hr H2H

Scale 1" = 10,000 m

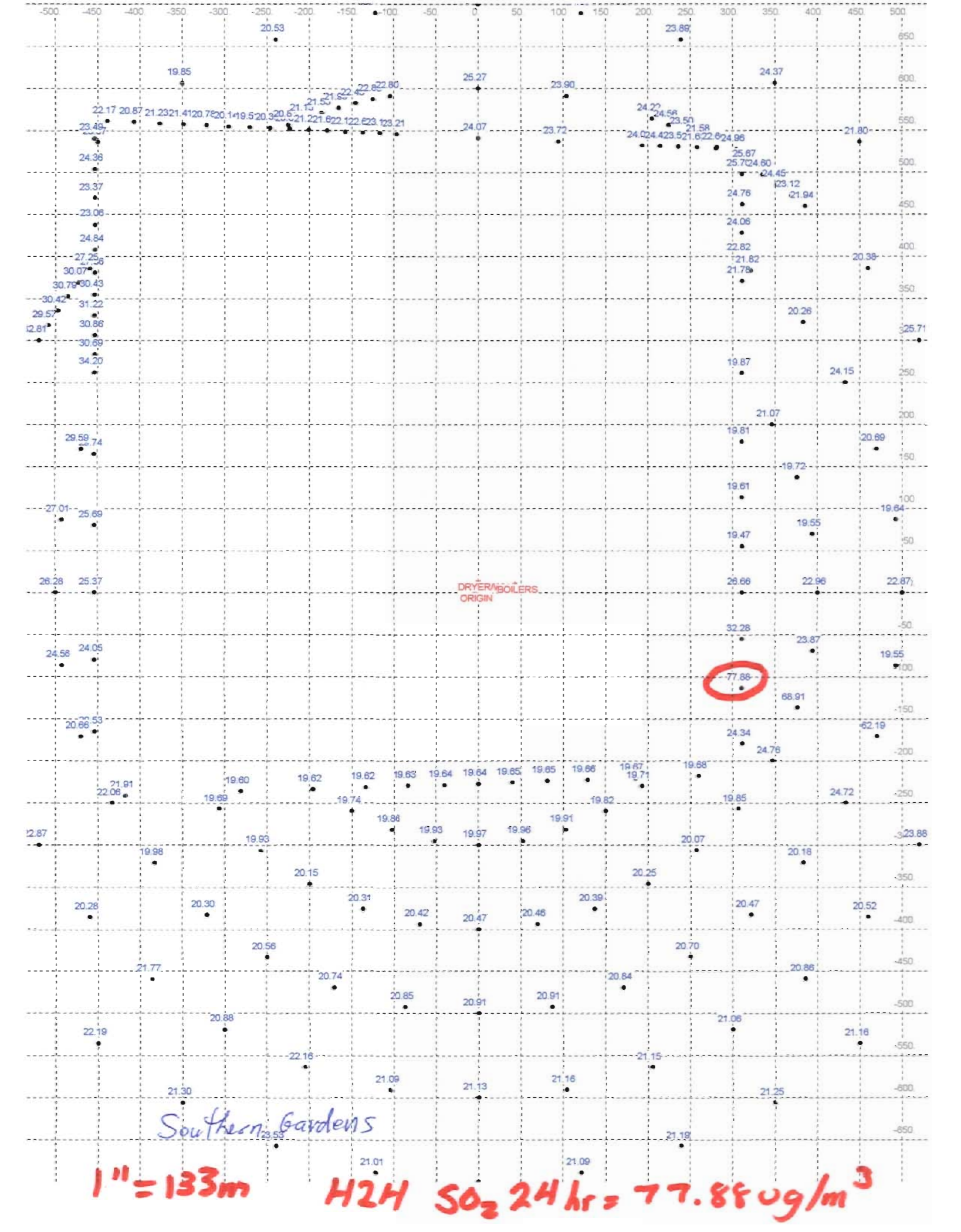


Sg50291.bst
24hr H2H

Scale 1" = 25,000m



Sg SO₂ 91, bst
24hr H2H
Scale 1" = 30K m



Southern Gardens

1" = 133m

H₂H SO₂ 24 hr = 77.88 ug/m³

DRYER/BOILERS
ORIGIN

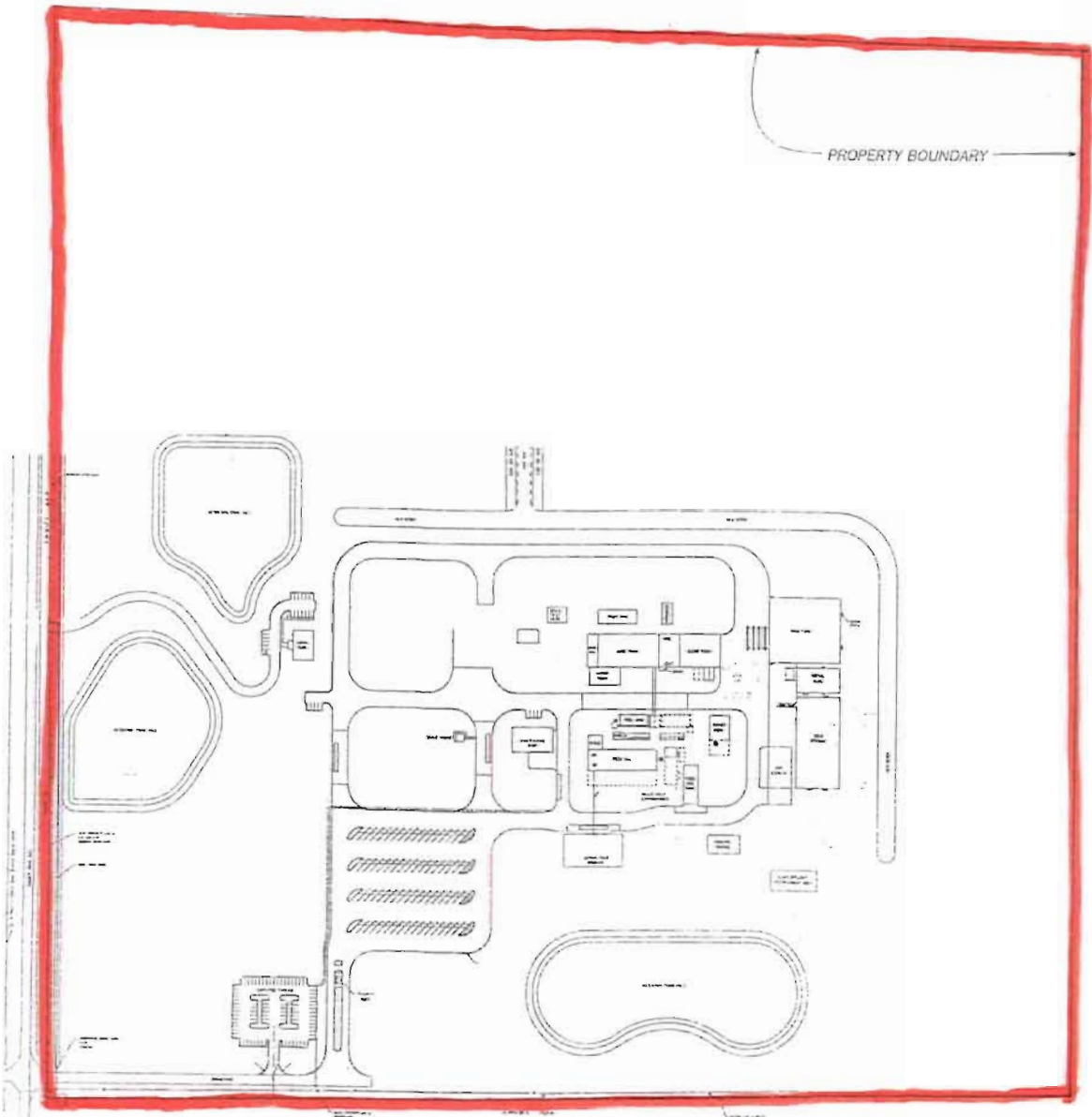
77.88

PROPERTY BOUNDARY IS ENTIRELY FENCED

04-01-97

Figure 3
Plant Layout Diagram

Southern Gardens Citrus



Post-It® Fax Note	7671	Date	12/01	# of pages	2
To	Stankrivo	From	Cleve Ho Ho day		
Co./Dept.	EPA Region IV	Co.	FDEP		
Phone #	404-562-9123	Phone #	850-921-8986		
Fax #	404-562-9095	Fax #	850-922-6976		

1" = 133m

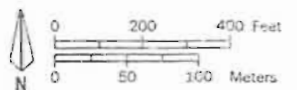
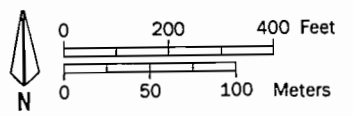
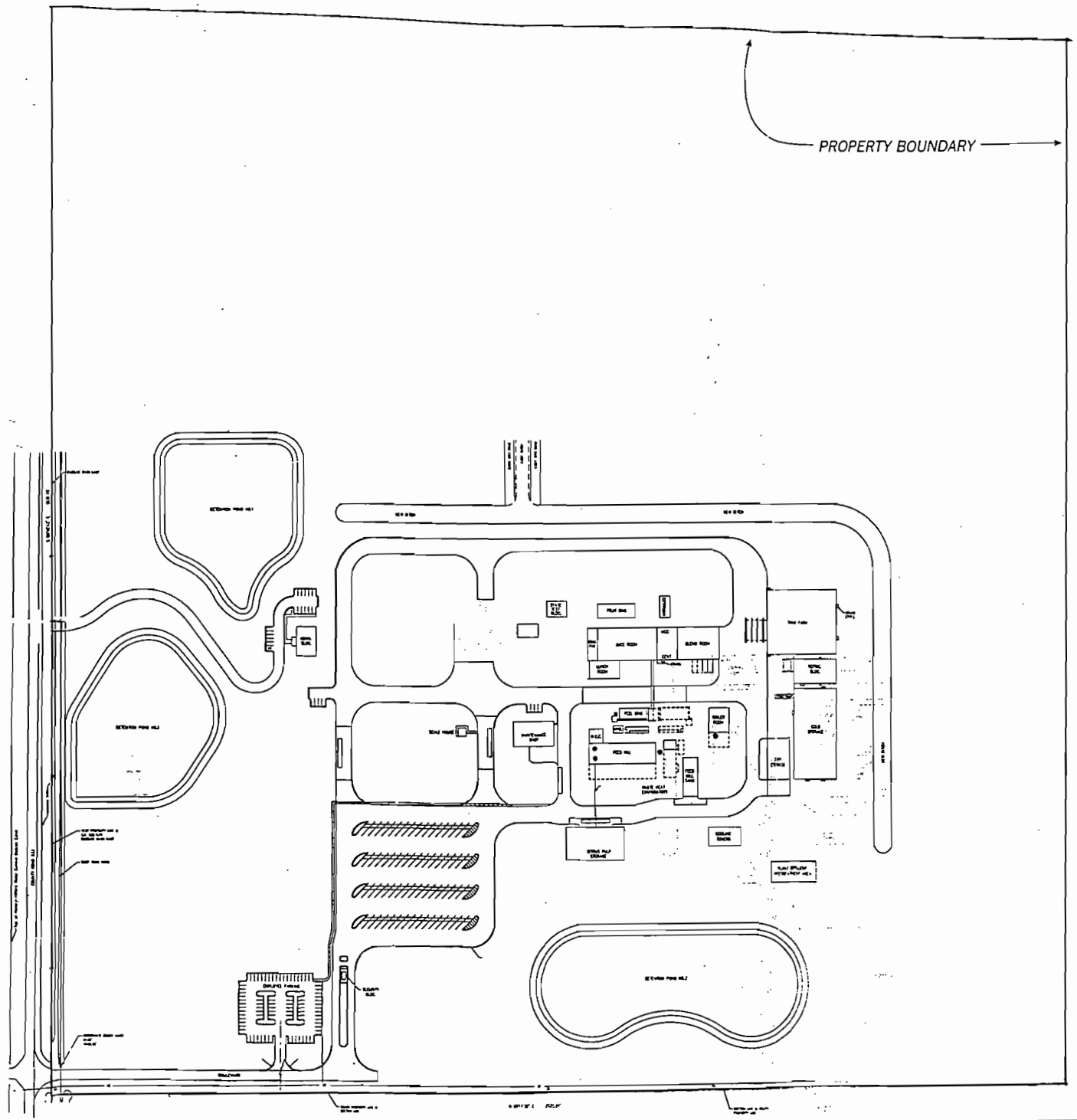
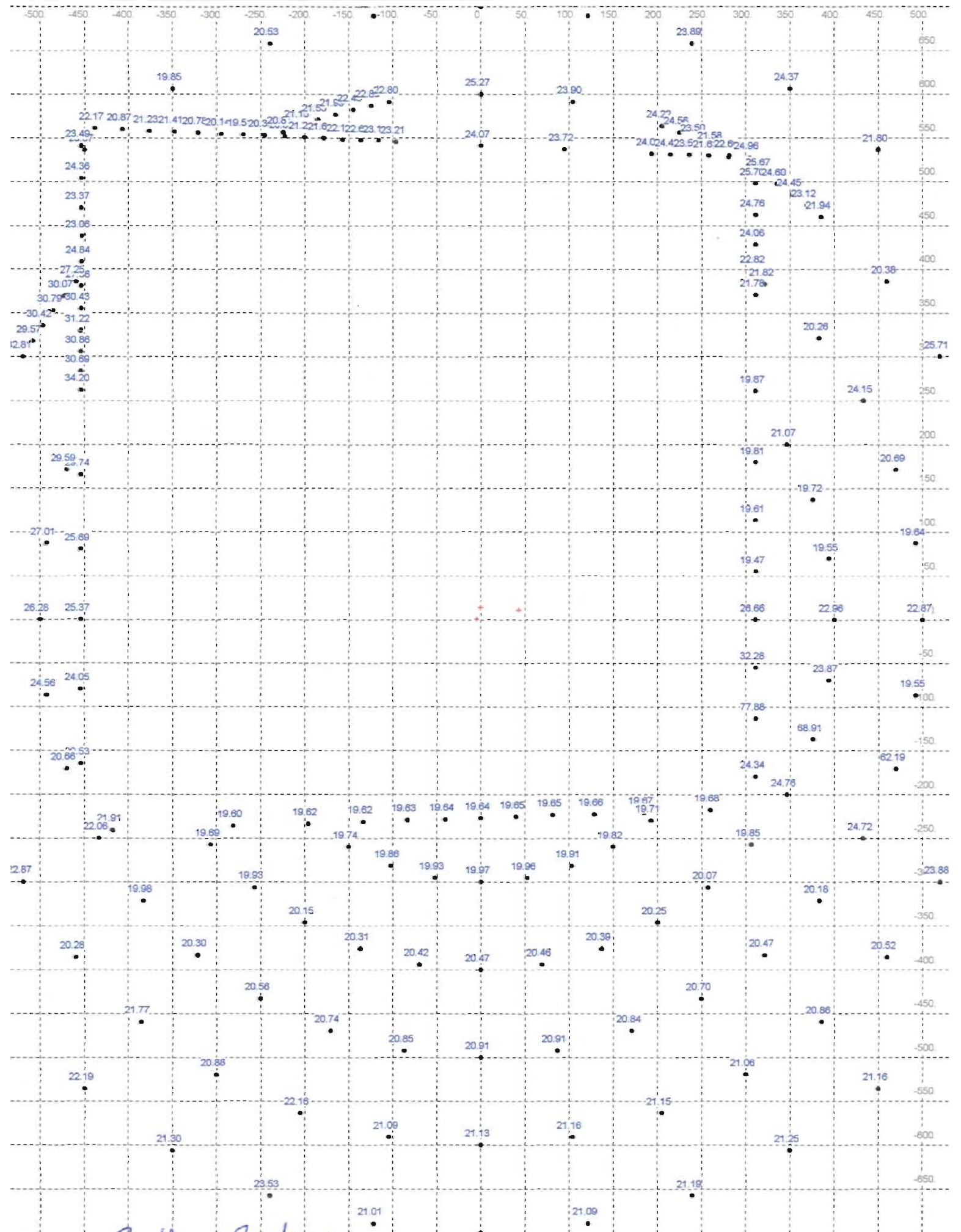


Figure 3
Plant Layout Diagram

Southern Gardens Citrus





Southern Gardens

not revised

Table 7-2. Maximum Pollutant Concentrations Predicted for the Proposed Project at the ENP
PSD Class I Area as Compared to Proposed EPA Class I Significant Impact Levels

OK

Pollutant	Averaging Time	Concentrations (ug/m ³)	Proposed EPA Class I Significant Impact Levels (ug/m ³)
SO ₂	Annual	0.0055	0.1
	24-Hour	0.066	0.2
	3-Hour	0.32	1.0
PM ₁₀	Annual	0.0078	0.2
	24-Hour	0.087	0.3
NO ₂	Annual	0.0270	0.1

Note: Maximum Impacts predicted with CALPUFF Model and Fort Myers/Tampa meteorological data for the ISCST3 model, 1987-91, enhanced for CALPUFF.

*Everything is based on ST deltas. - because of regional haze
Table 6-2
ST diff fut - current*

November 30, 2000

Mr. Cleveland Holladay
Bureau of Air Quality Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Revised Modeling Analysis for Southern Gardens Citrus

Dear Cleve:

This purpose of this letter is to address the air modeling issues for this facility that were mentioned in the second part of Environmental Protection Agency's letter to A.A. Linero dated November 15, 2000, of which Golder received a copy.

Response to Questions 1 and 2.

The permit application emission rate tables are the same as those provided in Section 2 of the PSD report. The maximum emission rates used in the air modeling analysis will match the emission rates provided in the Section 2 tables. Table 6-2 has some incorrect PM10 and CO emission rates for both the peel dryer/WHE and the pellet coolers. For the dryer, the future maximum PM10 emission rate should be 4.04 g/s, which matches Table 2-4. The CO emission rate should be 191.81 g/s, also matching the CO emission rate in Table 2-4. For the pellet coolers, the PM10 emission rate should be 0.63 g/s, matching Table 2-5. The air modeling analysis used the correct emission rates. Though not used in the air modeling analysis, some of the annual (TPY) emission rates were also corrected to match the values presented in Section 2 and the permit application.

2c. The dryer and pellet coolers future operation was extended from seven to nine months in all the air modeling analyses to account for up to 6,000 hours of operation for those units. This affected all of the air modeling files and as a result, all of these files were rerun. As a result of this change, the results in Tables 7-1, 7-3, 7-4, and 7-5 were also revised and are attached. The revised air modeling files have been electronically transferred separately to the Department. It should be noted that Table 7-2 did not require updating because the CALPUFF modeling analysis assumed full year operation for all modeled sources.

3. A figure of the fenced property line is attached. The property is entirely fenced with a guard house at the entrance.

4. All refined maximum predicted impacts presented in the report were resolved to less than 100 m receptor spacing along the fence line and to 100 m or less resolution beyond the fence line.

5. Please see the response to Question 2c.

6a. Please see the response to Question 1.

6b. The emission rates used in the visibility modeling analysis are correct. The visibility results presented in Section 8.3.8 of the PSD report are not. The first sentence of the results section should read as follows: " The maximum predicted change in visibility of 1.04 percent (0.104 deciview) is well below the criteria of 5.0 percent (0.5 deciviews)".

Please feel free to contact me if you have additional questions or if I can be of further assistance.

Sincerely,

GOLDER ASSOCIATES, INC

Steven R. Marks, CCM
Senior Meteorologist

cc: David Buff, Golder

Table 6-2. Short-term and Annual Emissions used in Modeling of SGCP

	Short-term Emissions				Long Term Emissions ^a			
	Current		Future		Current		Future	
	lb/hr	g/s	lb/hr	g/s	TPY	g/s	TPY	g/s
	Boilers				Boilers			
PM ₁₀	0.79 ✓	0.10	0.79 ^b ✓	0.10	0.71 ^c	0.02	2.04 ^b	0.06
SO ₂	54.64 ✓	6.88	54.64 ^b ✓	6.88	20.79 ^c	0.60	140.69 ^b	4.04
NO _x	15.81 ✓	1.99	15.81 ^b ✓	1.99	14.28 ^c	0.41	40.78 ^b	1.17
CO	3.95 ✓	0.50	3.95 ^b ✓	0.50	3.57 ^c	0.10	10.20 ^b	0.29
	Peel Dryer/WHE				Peel Dryer/WHE			
PM ₁₀	11.30 ^r	1.42	32.05 ^c	4.04	13.73 ^e	0.39 ^{.58}	96.2	2.77
SO ₂	19.62 ^r	2.47	42.00 ^c	5.29	20.49 ^e	0.59 ^{.86}	126.0	3.62
NO _x	10.40 ^r	1.31	27.70 ^c	3.49	10.87	0.31 ^{.46}	61.5	1.77
CO	339.00 ^r	42.71	1522.30 ^c	191.81	625.8	17.99 ^{26.28}	2882	82.84
	Pellet Coolers				Pellet Coolers			
PM ₁₀	0.19 ^r	0.02	5.00 ^d	0.63	0.36	0.01	15.00	0.43

^a From Table 2-2 Summary of Emissions.

^b Table 2-6. Future Potential Emissions for Boiler Nos. 1, 2, 3, and 4.

^c Table 2-3. Future Potential Emissions for Citrus Feed Mill

^d Table 2-4. Future Potential Emissions for Citrus Pellet Mill

^e Actual emissions are an average of the 1998-1999 AOR emissions.

^r Data from 4/18/2000 stack test.

Assume 28760

61.5

$$\frac{10.87 \text{ TPY} \times 2000 \frac{\text{lbs}}{\text{yr}}}{6000 \text{ hrs}} \times (.126) =$$

No NG

Excluded July, Aug, Sep
No operation

OK

Table 7-1. Maximum Predicted Pollutant Impacts for the Project Only at SGPCP

Averaging Time	Concentration ^a (ug/m3)	Receptor Location ^b		Time Period (YYMMDDHH)	EPA Significant Impact Level (ug/m ³)	
		Direction (degree)	Distance (m)			
SO₂						
Annual	0.4	190	1000	87123124		
	0.4	240	1000	88123124		
	0.3 ✓	250	700	89123124	1	NO
	0.6 °	244	900	90123124		
	0.5 °	244	1000	91123124		
HIGH 24-Hour	5.9	180	1000	87100824		
	5.7	190	1000	88020624		
	7.4 ✓ °	320	1100	89101124	5	YES
	6.6	230	500	90051124		
	5.1	290	600	91052824		
HIGH 3-Hour	19.7	180	400	87032112		
	18.5	230	500	88102612		
	20.3	290	500	89061815	25	NO
	19.2	302	535	90050212		
	20.2	210	500	91101015		
PM₁₀						
Annual	1.7 ✓	180	227	87123124		
	1.7	120	359	88123124		
	1.6	120	359	89123124	1	YES
	1.5	240	482	90123124		
	1.4	240	482	91123124		
HIGH 24-Hour	25.8 ✓	170	229	87100824		
	21.5	180	227	88020624		
	22.5	120	359	89103024	5	YES
	20.8	100	316	90011224		
	24.8	120	359	91122924		
NO_x						
Annual	0.4	190	1000	87123124		
	0.4	240	1000	88123124		
	0.4	304	600	89123124	1	NO
	0.6 ✓ °	242	800	90123124	0.7 → R	0.72 242900m
	0.5	240	1000	91123124		
CO						
HIGH 8-Hour	964.1	190	600	87100616		
	956.8	240	600	88102816		
	963.6	320	1000	89101116	500	YES
	863.7	230	500	90051116		
	1151.9	200	500	91101016		
HIGH 1-Hour	1791.1	240	482	87102013		
	1879.5	70	700	88102314		
	1907.7	312	610	89100614	2,000	NO
	1934.5	306	600	90101414		
	1895.6	300	524	91100414		

^a Based on 5-year meteorological record, Fort Myers/Ruskin, 1987-91

^b Relative to Southeast corner of Feed Mill building

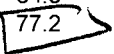
^c Refined values

Note: YYMMDDHH = Year, Month, Day, Hour Ending
High = Highest Concentration in 5 years.

Table 7-5. Maximum Predicted Pollutant Impacts Due to All Future Modeled Sources
PSD Class II Screening Analysis, SGPCPC

Averaging Time	Concentration ^a (ug/m ³)	Receptor Location ^b		Time Period (YYMMDDHH)
		Direction (degree)	Distance (m)	
SO₂				
Annual	1.8	110	331	87123124
	2.6	110	331	88123124
	2.1	110	331	89123124
	2	240	700	90123124
	1.3	240	1000	91123124
HSH 24-Hour	49.2	110	331	87010124
	49.3	110	331	88050624
	43.2	110	331	89050224
	34.5	110	331	90102524
	77.2	110	331	91030424
HSH 3-Hour	143.3	110	331	87031012
	169.1	110	331	88040815
	151.2	100	316	89051118
	156.5	100	316	90011215
	167.7	110	331	91030415
PM₁₀				
Annual	1.7	180	227	87123124
	1.6	120	359	88123124
	1.4	120	359	89123124
	1.6	240	482	90123124
	1.5	240	482	91123124
HSH 24-Hour	24.4	170	229	87100324
	22.0	120	359	88050624
	18.7	120	359	89052524
	21.0	90	311	90061924
	21.3	120	359	91021124

Run this one



^a Based on 5-year meteorological record, Fort Myers/Ruskin, 1987-91

^b Relative to Southeast corner of Feed Mill building

Note: YYMMDDHH = Year, Month, Day, Hour Ending
H2H = Highest, 2nd-Highest Concentration in 5 years.

Table 7-4. Maximum Refined Impacts as Compared to AAQS, SGCP

Averaging Time/ Pollutant	Concentration (ug/m ³)			Receptor Location			Florida AAQS (ug/m ³)
	Total	Contributed from		Direction (degrees)	Distance (m)	Period Ending (YYMMDDHH)	
		Modeled	Background				
<u>SO₂</u>							
Annual	11.0	6.0	5	242	800	90123124	60
HSH 24-hour	90.9	77.9	13	110	331	91030424	260
HSH 3-hour	215	168	47	110	331	91030415	1,300
<u>PM₁₀</u>							
Annual	26 25.6	2.6	23	240	482	90123124	50
HSH 24-hour	62 62.4	24.4 ✓	38	170	229	87100324	150
<u>CO</u>							
H2H 8-Hour	4,362	1,029	3,333	210	500	91101116	10,000
H2H 1-Hour	7,670	2,115	5,555	120	359	91063012	40,000

WELL BELOW
 ↓
 WELL BELOW

Table 7-3. Maximum Predicted Pollutant Impacts Due to All Future Modeled Sources
AAQS Screening Analysis, SGPCP

Averaging Time	Concentration ^a (ug/m ³)	Receptor Location ^b		Time Period (YYMMDDHH)
		Direction (degree)	Distance (m)	
SO₂				
Annual	4.4	110	331	87123124
	5.5	110	331	88123124
	4.9	110	331	89123124
	5.9	240	700	90123124
	5.4 ✓	240	700	91123124
HSH 24-Hour	50.4	110	331	87010124
	49.3	110	331	88050624
	43.7	110	331	89050224
	34.5	110	331	90102524
	77.9 ✓	110	331	91030424
HSH 3-Hour	143.3	110	331	87031012
	159.4	110	331	88070115
	151.2	100	316	89051118
	156.5	100	316	90011215
	167.7 ✓	110	331	91030415
PM₁₀				
Annual	2.3	180	227	87123124
	2.4	120	359	88123124
	2.3	120	359	89123124
	2.6	240	482	90123124
	2.4	240	482	91123124
HSH 24-Hour	24.4	170	229	87030424
	22	120	359	88050624
	18.7	120	359	89050624
	21.3	90	311	90010924
	21.3	120	359	91021124
CO				
H2H 8-Hour	786.1	180	500	87022316
	719.2	240	700	88032816
	753.5	190	500	89052716
	840.9	250	500	90032416
	1029.2	210	500	91101116
H2H 1-Hour	1971.4	360	2000	87120205
	2051.3	230	400	88052011
	2067.1	190	400	89061111
	1998.7	160	300	90061714
	2114.8	120	359	91063012

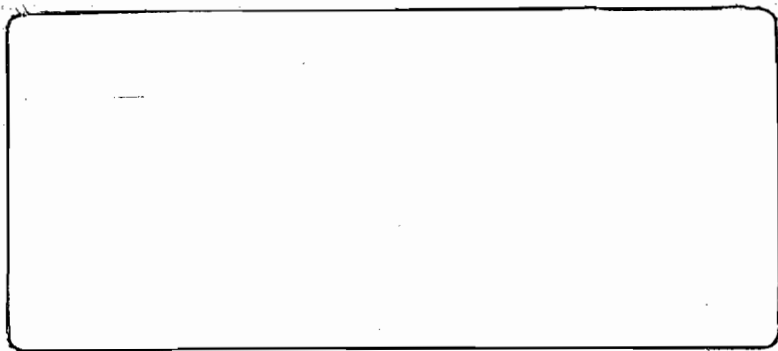
^a Based on 5-year meteorological record, Fort Myers/Ruskin, 1987-91

^b Relative to Southeast corner of Feed Mill building

Note: YYMMDDHH = Year, Month, Day, Hour Ending
H2H = Highest, 2nd-Highest Concentration in 5 years.

Table 7-6. Maximum Refined Impacts as Compared to PSD Class II Increments, SGPCPC

Averaging Time/ Pollutant	Concentration (ug/m ³)	Receptor Location		Period Ending (YYMMDDHH)	Allowable PSD Class II Increment (ug/m ³)
		Direction (degrees)	Distance (m)		
<u>SO₂</u>					
Annual	2.6 ✓	110	331	88123124	20
24-hour	77.2 ✓	110	331	91030424	91
3-hour	169 ✓	110	331	88040815	512
<u>PM₁₀</u>					
Annual	1.7 ✓	180	227	87123124	17
24-hour	24.4 ✓	170	229	87100324	30





Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

PERMITTEE

Southern Gardens Citrus Processing Corp.
PO Box 130
Clewiston, Florida 33440

Permit No.	0510015-007-AC, PSD-FL-299
Project	Addition of 3 Juice Extractors
SIC No.	2037
Expires:	November 30, 2001

Authorized Representative:

Tristan Chapman, VP and General Manager

PROJECT AND LOCATION

This permit authorizes Southern Gardens Citrus Processing Corp. to install three additional citrus juice extractors at its existing citrus processing facility, raising the total number of extractors to thirty nine.

This facility is located at 755 County Road 833, Clewiston, Hendry County. The UTM coordinates are: Zone 17; 487.5 km E and 2958.0 km N.

STATEMENT OF BASIS

This construction/PSD permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to make physical changes in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

APPENDICES

The attached appendices are a part of this permit:

Appendix B BACT Determination Summary
Appendix GC General Permit Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

"More Protection, Less Process"

Printed on recycled paper.

AIR CONSTRUCTION PERMIT
SECTION I. FACILITY INFORMATION

FACILITY DESCRIPTION, PROJECT DETAILS AND RULE APPLICABILITY

This facility consists of an existing citrus processing facility that extracts juice from whole citrus fruit to produce single-strength and frozen concentrated juices and byproducts of juice production such as citrus oils, citrus molasses and animal feed.

The applicant proposed in this project to install three additional juice extractors, bringing the total number of juice extractors at the facility to thirty nine. This will raise the annual processing capacity of the facility to 20 million boxes of citrus fruit per year (based on 90 pounds of oranges or 85 pounds of grapefruit per box).

The emissions increases associated with this project were estimated by the applicant as follows in tons per year:

Pollutant	Actual Emissions ¹	Potential Emissions ²	Net Increase	PSD Significance	Subject to PSD?
PM	17.1	115.3	98.2	25	Yes
PM ₁₀	14.8	113.2	98.4	15	Yes
SO ₂	41.3	266.7	225.4	40	Yes
NO _x	25.1	102.3	77.2	40	Yes
CO	629 ³	2892 ³	2263	100	Yes
VOC	1189	2029 ³	840	40	Yes

¹ Actual emissions were estimated by the applicant for the 1998 and 1999 calendar years from annual operation reports.

² Potential emissions were estimated by the applicant given current permit limits. Potential emissions do not include standby units—boiler 4, operation of which is limited by existing permits, and pellet coolers 1 and 2, operation of which is limited by this permit.

³ VOC emissions are estimated by material balance, except for d-limonene tanks which are from TANKS model. The applicant assumed oil that is unaccounted for is destroyed in the dryer; this permit does not provide for destruction efficiency. Potential CO emissions are estimated to be 160% of VOC emissions based on limited data. Actual emissions were estimated using historic test data.

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, F.S., and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The existing facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment or unclassifiable for the criteria pollutants ozone, PM₁₀, carbon monoxide, SO₂, nitrogen dioxide and lead. This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant exceeds 100 tons per year (TPY). At this facility potential emissions of PM/PM₁₀, SO₂, NO_x, CO and VOC exceed 100 TPY.

This facility is not within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 250 TPY for at least one criteria pollutant, the facility is also an existing Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). The net increase in emissions of PM/PM₁₀, SO₂, NO_x, CO and VOC exceed the PSD significance levels of Table 212.400-2, F.A.C. Therefore the project is subject to PSD requirements of Rule 62-212.400, F.A.C., for these pollutants. The project results in these net emissions increases because of collateral emissions increases from existing permitted emissions units, rather than emissions

AIR CONSTRUCTION PERMIT
SECTION I. FACILITY INFORMATION

from the new juice extractors. The project is subject to a BACT determination for the three existing d-limonene storage tanks, as discussed in the Department's Technical Evaluation and BACT/MACT Determination. Briefly, although this project results in a physical change to the facility by the addition of the three juice extractors, the applicant is not constructing emissions units, and the applicant's requested relaxation of current federally enforceable limits on the existing d-limonene storage tanks does not result in a requirement to install control technology.

This permit allows the installation of the juice extractors, but imposes facility-wide limitations on citrus fruit processing capacity and citrus oil recovery of the facility to limit potential emissions from the facility's existing emissions units. These limits are established in Section II of this permit. This permit also imposes specific requirements to limit potential emissions of particulate matter from the peel dryer and pellet coolers to conform to the assumptions used in performing impact modeling which provide for PSD increment values for PM₁₀ to not be exceeded. These limits are established in Section III of this permit. The permit allows the requested change in the annual throughput limit of d-limonene for the three existing storage tanks from 500,000 gallons to 1,000,000 gallons per consecutive 12 month period. The permit removes the existing VOC emissions limit from these tanks and the four existing fuel oil storage tanks, which are included in emissions unit 006. No NSPS requirements for the storage tanks are changed by this permit. The fuel oil throughput limits of previous permits are not changed by this permit, so potential emissions from these tanks will not change. This permit does not change any limit imposed by previous permits for the steam generating units or lime silo at the facility.

The applicant stated that this facility is a major source of hazardous air pollutants (HAPs). This project is not subject to a case-by-case MACT determination, per Rule 62-204.800(10)(d)2, F.A.C., because it does not result in the construction or reconstruction of a major source of HAP emissions.

This project does not impose any requirements under the New Source Performance Standards, 40 CFR 60, or National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61 or 63.

REVIEWING AND PROCESS SCHEDULE

September 5, 2000	Received permit application and fee
September 5, 2000	Application complete
October 11, 2000	Distributed Notice of Intent to Issue and supporting documents
October 18, 2000	Notice of Intent published in the Clewiston News

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Permit application
- Department's Technical Evaluation and BACT Determination
- Department's Intent to Issue

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

The following specific conditions apply to all emissions units at this facility addressed by this permit after installation of any or all of the three additional juice extractors. The throughput and oil recovery limitations shall apply to the facility as a whole. These conditions shall revise and supplement conditions imposed by previous permitting actions. Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, phone number 850/488-0114. All documents related to reports, tests, minor modifications and notifications shall be submitted to the Department's South District office at PO Box 2549, Fort Myers, Florida 33902-2549, and phone number 941-332-6975.
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Expiration: This air construction permit shall expire on November 30, 2001. The permittee, for good cause, may request that this construction/PSD permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C.]

PSD Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

extend the 18-month period upon a satisfactory showing that an extension is justified. [Rules 62-4.070(4), 62-4.210(2) & (3), and 62-210.300(1)(a), F.A.C.]

BACT Determination Review: In conjunction with extension of the 18 month periods to commence or continue construction, extension of the permit expiration date, or where construction is conducted in two or more phases, the permittee may be required to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for the source. [Rules 62-4.070(4), 62-4.210(2) & (3), 62-210.300(1)(a), and 62-212.400(6)(b), F.A.C.]

7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
8. Title V Operation Permit Revision Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit revision is required to reflect new limitations on emissions for the pellet coolers and limits on the VOC tanks. The owner or operator shall apply for a Title V operation permit at least ninety days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's South District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

EMISSION LIMITING STANDARDS

9. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]
10. Unconfined Emissions of Particulate Matter: [Rule 62-296.320(4)(c), F.A.C.]
 - (a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
 - (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
 - (c) Reasonable precautions for this facility include the following:
 - Paving and maintenance of roads, parking areas and yards.

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SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

- Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
- Use of high efficiency baghouse during loading of the lime silo.
- Use of high efficiency baghouse at the pellet load out area (if necessary).
- Enclosure or covering of conveyor systems.
- Limiting access to plant property by unnecessary vehicles.
- Enclosed warehouse for pellet storage.

(d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

11. General Pollutant Emission Limiting Standards: [Rule 62-296.320(1)(a)&(2), F.A.C.]

- (a) No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
- (b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Note: An objectionable odor is defined in Rule 62-210.200(198), F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.]

OPERATIONAL REQUIREMENTS

12. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's district office and, if applicable, appropriate local program. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]
13. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]
14. Excess Emissions: Except for the pellet coolers, emissions units 004, 005 and 009, this permit does not change any authorization for excess emissions provided by other Department permits. This permit specifically limits periods of excess emissions for the pellet coolers. Excess emissions are not permitted by this permit for the pellet coolers, emissions units 004, 005 and 009, for any duration for startup and shutdown. [Rule 62-210.700(5), F.A.C.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

15. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
16. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
17. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
18. Test Procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C. [Rule 62-297.310(4), F.A.C.]
19. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]
 - (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
 - (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
20. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. [Rule 62-297.310(6), F.A.C.]

21. **Test Notification:** The owner or operator shall notify the Department's district office and, if applicable, appropriate local program, at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9., F.A.C.]
22. **Special Compliance Tests:** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

23. **Duration of Record Keeping:** Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]
24. **Test Reports:** The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
25. **Excess Emissions Report:** In case of excess emissions resulting from malfunction, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rules 62-4.130 and 62-210.700(6), F.A.C.]
26. **Annual Operating Report for Air Pollutant Emitting Facility:** The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

South District office and, if applicable, the appropriate local program by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

27. **Fruit Throughput Limited:** The owner or operator shall not process more than 20.0 million boxes of citrus fruit in any consecutive 12 month period. For purposes of this permit, a box of citrus fruit shall be defined to contain 90 pounds of oranges or 85 pounds of grapefruit. The owner or operator shall make and maintain monthly and rolling 12 month records of fruit processing rates to demonstrate compliance with this limitation. Such records shall be made from daily processing records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C.]
28. **Minimum Oil Recovery Required:** The owner or operator shall recover a minimum of 50.0 percent of oil from citrus fruits processed during each consecutive 12 months of operation, as determined by the following methodology.

Measurement of recovery of oil from citrus fruits processed shall be by material balance using the measured oil in the incoming fruit, divided into the sum of the oil remaining in juice, the cold press oil recovered, d-limonene recovered, and oil remaining in the dried pellets, expressed as a percentage. Alternatively, the material balance may use the measured oil in the incoming fruit divided into the oil measured remaining in the pressed peel prior to introduction into the feed mill dryers, in which case the decimal result shall be subtracted from the numeral 1, and added to the decimal result of the measured oil in the incoming fruit divided into the oil measured remaining in the dried pellets, with the resulting sum expressed as a percentage. Measurement of recovery of oil shall be made each operational day and averaged over the days of facility operation during each month. The monthly averages shall be averaged to calculate the consecutive 12 month oil recovery. Monthly records shall be completed no later than the 10th day of each following month. The owner or operator shall elect to use one of the above material balance methods and shall not change methods without approval from the Department's Bureau of Air Regulation.

The owner or operator may accept wet peel from offsite sources for drying, provided that the owner or operator receives sufficient recorded information from the offsite source to measure available oil and oil recovery at the offsite source, and accounts for those values in determining compliance with the limitation of this paragraph. Any wet peel received from any offsite source, expressed as the equivalent boxes of fruit derived from production records of the offsite source, shall be included in the throughput limitation of specific condition 27, above. Wet peel not processed through the peel dryer shall be excluded from the oil recovery calculations. Methodologies for determining oil contents shall be submitted by the owner or operator to the Department's Bureau of Air Regulation for approval prior to beginning record keeping pursuant to this condition. [Rule 62-4.070(3), F.A.C.]

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection A. The following specific conditions apply to the following emissions units after installation of any or all of the three additional juice extractors. These conditions shall revise and supplement conditions imposed by previous permitting actions. Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
004	Pellet cooler number 1, venting through cyclone 1
005	Pellet cooler number 2, venting through cyclone 2
009	Pellet cooler number 3, venting through cyclone 1

[Note: These emissions units are subject to the requirements of the state rules as indicated in this permit.]

OPERATIONAL REQUIREMENTS

1. Hours of Operation: These emissions units shall operate no more than 6000 hours during any consecutive 12 month period. [Rules 62-4.070(3), 62-210.200 and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]
2. Operation Limited: The owner or operator shall only operate either: pellet coolers 1 and 2 together (emissions units 004 and 005), or pellet cooler 3 alone (emissions unit 009). [Rules 62-4.070(3) and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

3. Particulate Emissions Limited: Emissions of particulate matter (PM/PM₁₀) from pellet coolers 1 and 2 together (emissions units 004 and 005), or pellet cooler 3 alone (emissions unit 009), shall not exceed 5.0 pounds per hour. [Rules 62-4.070(3) and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

4. Emission Tests Required: The owner or operator shall demonstrate compliance with the particulate emissions limit of this section by testing the emissions units initially and prior to renewal of each operation permit using Method 5 of 40 CFR 60 Appendix A, assuming that all particulate matter is PM₁₀. [Rules 62-4.070(3) and 62-297.310, F.A.C., required to monitor compliance with the limitation on potential to emit]

REPORTING AND RECORD KEEPING REQUIREMENTS

5. Records of Operation Required: The owner or operator shall make and maintain records of hours of operation of each pellet cooler in units of hours per month and hours per consecutive 12 month period, to demonstrate compliance with the limit of condition 1 of this section. The records shall also detail which pellet cooler(s) were in operation during the operating period recorded, to demonstrate compliance with the requirements of condition 2 of this section. Records shall be made from daily operation records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C., required to monitor compliance with the limitation on potential to emit]

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection B. The following specific conditions apply to the following emissions unit after installation of any or all of the three additional juice extractors. These conditions shall revise and supplement conditions imposed by previous permitting actions. Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
003	Citrus feed mill peel dryer/waste heat evaporator

[Note: This emissions unit is subject to the requirements of the state rules as indicated in this permit. This permit does not change the particulate emission limit of Rule 62-296.320(4)(a), F.A.C., (process weight table) or annual compliance testing frequency established by previous permits. This permit limits the input of pressed (wet) peel in order to limit potential emissions of PM/PM₁₀ to 32.05 pounds per hour and 96.15 tons per year. All PM is assumed to be PM₁₀.]

OPERATIONAL REQUIREMENTS

1. Hours of Operation: This emissions unit shall operate no more than 6000 hours during any consecutive 12 month period. [Rules 62-4.070(3), 62-210.200 and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]
2. Operation Limited: The rate of pressed peel input to the dryer shall not exceed 47 tons per hour, including the weight of moisture in the pressed peel, on a daily average basis. [Rules 62-4.070(3) and 62-212.400, F.A.C., limitation on potential to emit and assumptions relied upon for modeling impacts]

REPORTING AND RECORD KEEPING REQUIREMENTS

3. Records of Operating Hours Required: The owner or operator shall make and maintain records of hours of operation of this emissions unit in units of hours per month and hours per consecutive 12 month period, to demonstrate compliance with the limit of condition 1 of this section. Records shall be made from daily operation records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C., required to monitor compliance with the limitation on potential to emit]
4. Records of Input Rate Required: The owner or operator shall make and maintain records of the average rate of pressed peel input to the dryer, to demonstrate compliance with the requirements of condition 2 of this section. Records shall be made each day by dividing that day's total input rate of peel by that day's hours of operation of the dryer. [Rule 62-4.070(3), F.A.C., required to monitor compliance with the limitation on potential to emit]
5. Records of Operation of Dryer Bypass Stack Required: The owner or operator shall make records of the number of hours each day that the dryer is operated with emissions directed in total or in part through the bypass stack. The number of hours of bypass stack operation recorded each calendar quarter shall be reported to the South District office no later than the 10th day following each calendar quarter. [Rule 62-4.070(3), F.A.C.]

[Note: Excess emissions are limited by Rule 62-210.700, F.A.C., and previous Department permits. Those limitations are not changed by this permit.]

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection C. The following specific conditions apply to the following emissions unit after installation of any or all of the three additional juice extractors. These conditions shall revise and supplement conditions imposed by previous permitting actions. Except for the conditions of this subsection, no other conditions of previous permitting actions shall be changed by this permit.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
006	Seven volatile organic liquid storage tanks

[Note: This emissions unit is subject to the requirements of the state rules as indicated in this permit. Although subject to a BACT determination, no add-on control technology for the existing d-limonene storage tanks is required by this permit. This permit changes the throughput limit for d-limonene for three existing 24,000 gallon storage tanks from 500,000 gallons to 1,000,000 gallons per consecutive 12 month period. This permit also removes any emission limit for VOC from these d-limonene tanks and the four existing fuel oil storage tanks. This permit does not change any NSPS requirement imposed by previous permits and does not change any throughput limit for the fuel oil storage tanks imposed by previous permits. Potential emissions from the d-limonene tanks is 2.49 tons per year based on modeling conducted with EPA's TANKS model. Because throughput limits for the fuel oil storage tanks are not changed by this permit, potential emissions from those tanks will not change.]

OPERATIONAL REQUIREMENTS

1. d-limonene Tank Operation Requirements: The rate of throughput of d-limonene in all three existing tanks combined shall not exceed one million gallons in any consecutive 12 month period. No liquid other than d-limonene shall be put through the existing three tanks, and the tanks shall be maintained in good condition, and shall not be painted a dark color. [Rules 62-4.070(3) and 62-212.400, F.A.C., BACT and limitation on potential to emit]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

2. VOC Emissions No Longer Limited: Emissions of VOC from the three existing d-limonene storage tanks and the four existing fuel oil storage tanks shall not be limited. [Rule 62-4.070(3) and applicant request]

REPORTING AND RECORD KEEPING REQUIREMENTS

3. Records of Operation Required: The owner or operator shall make and maintain records of throughput of d-limonene in units of gallons per month and gallons per consecutive 12 month period, to demonstrate compliance with the throughput limit of condition 1 of this section. Records shall be made from daily operation records and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C.]

APPENDIX B. BACT DETERMINATION SUMMARY

A complete discussion of the Department's technical evaluation and BACT determination is included in the document titled *Technical Evaluation and BACT Determination*. Following is a summary of the Department's control technology determinations pursuant to Rules 62-212.400, F.A.C., (BACT). None of the emissions units are subject to Rule 62-204.800(10)(d)2, F.A.C., (case-by-case MACT).

Emissions Unit	Pollutant	BACT Requirements
006, three d-limonene storage tanks	VOC	Maintain tanks in good condition and do not paint a dark color

Note: The fuel oil storage tanks of emissions units 006 are not subject to BACT.

The specific requirements associated with the BACT requirements are shown in Subsection C of Section III of the permit.

1 APPLICANT NAME AND ADDRESS

Southern Gardens Citrus Processing Corp.
PO Box 130
Clewiston, Florida 33440

Authorized Representative: Tristan Chapman, VP and General Manager

2 PROJECT

The project is the installation of three additional citrus juice extractors at its existing citrus processing facility, raising the total number of extractors to thirty nine, and raising the annual processing capacity of the facility to 20 million boxes of citrus fruit per year (based on 90 pounds of oranges or 85 pounds of grapefruit per box). The project description, emissions and rule applicability are described in detail in Section I of the permit.

3 SOURCE IMPACT ANALYSIS

As discussed in more detail in Section II of the permit, the annual potential emissions associated with this project are: PM/PM₁₀, 115.3/113.2; SO₂, 266.7, NO_x, 102.3; CO, 2892; and VOC, 2026 tons per year. An impact analysis was required for this project because it is subject to the requirements of PSD for these pollutants.

3.1 AIR QUALITY ANALYSIS INTRODUCTION

The proposed project will increase emissions of five regulated pollutants at levels in excess of PSD significant amounts: PM/PM₁₀, SO₂, NO₂, CO and VOC. PM₁₀, SO₂ and NO₂ are criteria pollutants and have national and state ambient air quality standards (AAQS), PSD increments, and significant impact levels defined for them. CO is a criteria pollutant and has only AAQS and significant impact levels defined for it.

Potential emissions for VOC are above the 40 TPY significance threshold for the pollutant ozone. The applicant presented the potential increases to the Department, but based on the options available to predict potential impacts associated with the emissions and formation of ozone, the Department has determined that the use of regional models which incorporate the complex chemical mechanisms for predicting ozone formation are not feasible for this project.

The applicant's initial Class II PM₁₀, SO₂ and CO analyses revealed significant impacts in the area surrounding the proposed facility; therefore, full impact Class II AAQS analyses were conducted for PM₁₀, SO₂ and CO, and PSD Class II increment analyses were conducted for PM₁₀ and SO₂. Because the project's impact for PM₁₀, SO₂, NO₂ and CO are less than the de minimis monitoring concentration, pre-construction monitoring was not required for this project.

The applicant's initial Class I PM₁₀, SO₂, and NO₂ analyses revealed no significant impact in the Everglades National Park (ENP). Therefore no additional Class I increment modeling was required.

Based on the preceding discussion, the air quality analyses required by the PSD regulations for this project were the following: a significant impact analysis for PM₁₀, SO₂, NO₂, and CO in the surrounding Class II Area and the Class I ENP; a Class II AAQS analysis for PM₁₀, SO₂ and CO; a Class II PSD increment analysis for PM₁₀ and SO₂; and an analysis of impacts on soils, vegetation, visibility, and of growth-related air quality modeling impacts.

Based on these required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or

significantly contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in *NRDC v. Thomas*, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A more detailed discussion of the required analyses follows.

3.2 MODELS AND METEOROLOGICAL DATA USED IN THE AIR QUALITY ANALYSIS

PSD Class II Area

The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project in the surrounding Class II Area. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. It incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfied the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from National Weather Service (NWS) stations at Fort Myers, Florida (surface data) and Ruskin, Florida (upper air data). The 5-year period of meteorological data was from 1987 through 1991. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

PSD Class I Area

The California Puff (CALPUFF) dispersion model was used to evaluate the pollutant emissions from the proposed project in the Everglades National Park. Meteorological data used in this model was 1987-1991 Fort Myers, Florida/Tampa, Florida ISCST3 data which was enhanced for CALPUFF. CALPUFF is a non-steady state, Lagrangian, long-range transport model that incorporates Gaussian puff dispersion algorithms. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, line, area, and volume sources. The CALPUFF model has the capability to treat time-varying sources. It is also suitable for modeling domains from tens of meters to hundreds of kilometers, and has mechanisms to handle rough or complex terrain situations. Finally, the CALPUFF model is applicable for inert pollutants as well as pollutants that are subject to linear removal and chemical conversion mechanisms.

3.3 FULL IMPACT MODELING

Full impact modeling is modeling that combines the impact of the proposed project along with the impact of other major sources located within the vicinity of the project. The results of this modeling are compared to the applicable AAQS and PSD increments.

TECHNICAL EVALUATION AND BACT DETERMINATION

AAQS Analysis for PM₁₀, SO₂ and CO

The AAQS represents the maximum concentration of a pollutant that ambient air may contain. Atmospheric dispersion modeling, as previously described, was performed to quantify the amount of PM₁₀, SO₂ and CO in the ambient air surrounding the facility. To make the modeling conservative, the maximum predicted impact was added to a background concentration that was observed at a local air monitor. The results of this analysis are shown in the table below. Maximum PM₁₀, SO₂ and CO concentrations predicted for the proposed project did not show any impacts greater than the AAQS for all corresponding averaging periods. Therefore, the proposed project will not contribute to a violation of the AAQS for PM₁₀, SO₂ and CO, and may be permitted by Department rules.

AAQS ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m ³)	Background Conc. (ug/m ³)	Total Predicted Impact (ug/m ³)	AAQS (ug/m ³)	Impact Greater Than AAQS?
PM ₁₀	Annual	2	23	25	50	NO
	24-hour	22	38	60	150	NO
CO	8-hour	871	3333	4204	10000	NO
	1-hour	2025	5555	7580	40000	NO
SO ₂	Annual	6	5	11	60	NO
	24-hour	78	13	91	260	NO
	3-hour	168	47	215	1300	NO

PSD Class II Increment Analysis

The PSD increment represents the amount that sources constructed after the PSD Baseline Dates, (February 8, 1988 for NO₂ and January 6, 1975 for PM₁₀ and SO₂), may increase ambient ground level concentrations of a pollutant. Atmospheric dispersion modeling was performed to quantify the amount of PSD increment consumed in the Class II Area surrounding the facility for PM₁₀ and SO₂. The results of this analysis are shown in the table below. Maximum PM₁₀ and SO₂ concentrations predicted for the proposed project at receptors in the Class II Area do not show any impacts greater than the PSD Class II increments for the corresponding averaging periods. Therefore, the proposed project will not contribute to a violation of the Class II increment for PM₁₀ or SO₂, and may be permitted by Department rules.

PSD CLASS II INCREMENT ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m ³)	Allowable Increment (ug/m ³)	Impact Greater Than Allowable Increment?
PM ₁₀	Annual	1	17	NO
	24-hour	22	30	NO
SO ₂	Annual	3	20	NO
	24-hour	77	91	NO
	3-hour	168	512	NO

3.4 ADDITIONAL IMPACTS ANALYSIS

Impact On Soils, Vegetation, And Wildlife

The maximum ground-level concentrations predicted to occur for all regulated pollutants, as a result of the proposed project, including background concentrations and all other nearby sources, will be less than the respective ambient air quality standard (AAQS). The project impacts are less than the AAQS for all regulated pollutants, and less than the applicable allowable increments for all regulated pollutants.

Because the AAQS are designed to protect both the public health and welfare, it is reasonable to assume the impacts on soils, vegetation, and wildlife will be minimal or insignificant.

Impact On Visibility

Due to the close proximity of this project to the ENP Class I Area, a regional haze analysis was performed. The CALPUFF dispersion model was recommended by the Department of the Interior for use in this regional haze analysis because of its ability to handle atmospheric chemical transformations as well as wet/dry deposition. The results indicate that the proposed project will not have an adverse impact on visibility and regional haze in the ENP.

Growth-Related Air Quality Impacts

There will be no significant short-term increase in the labor force to construct the project which will not result in significant commercial and residential growth in the vicinity of the project.

4 BACT DETERMINATION REQUESTED BY THE APPLICANT

The applicant proposed that BACT does not apply to this project because the process components (three juice extractors) undergoing physical change (installation) have little associated emissions. The applicant did not request the relaxation of any current federally enforceable production or process limits on the existing emissions units, except for three existing d-limonene storage tanks. The applicant did not propose BACT for the existing tanks. The applicant acknowledges that the other existing emissions units—steam boilers, peel dryer and pellet coolers—may experience an increase in actual hours of operation or production rates as a result of this project, but previous permits either imposed no limit on these parameters or the existing permitted capacities are sufficient to accommodate the change. The applicant proposed that because these emissions units will not be modified (undergo a physical change or change in the method of operation as defined by federal rules), BACT will not apply to these units.

5 BACT ANALYSIS AND DEPARTMENT'S DETERMINATION - JUICE EXTRACTORS

The BACT evaluation should be performed for each emissions unit and pollutant under consideration. For this project the PSD pollutants of concern are PM/PM₁₀, SO₂, NO_x, CO, and VOC. The project results in a net emissions increase greater than the significant emission rates for PM/PM₁₀, SO₂, NO_x, CO and VOC because of collateral emissions increases from existing permitted emissions units. However, for this project, no emissions unit is being constructed. The only modification requested is a relaxation on throughput and removal of the VOC emissions limit for three 24,000 gallon storage tanks for d-limonene, a byproduct of the citrus oil recovery process. No detailed BACT evaluation was required for the tanks. This is discussed further below.

The process equipment to be installed for this project are three juice extractors. Juice extractors derive citrus juice from washed and graded citrus fruits by mechanically squeezing or reaming the juice out of whole or halved fruits. Other products of this operation are peel oil, pulp, peel, rag and seeds. The juice is further processed by other equipment at the facility to produce pasteurized single-strength juice or frozen concentrated juice. The peel, pulp rag and seeds are further processed by other equipment at the facility into other products and byproducts, including boxed pulp, pulp wash, animal feed and citrus molasses.

The Department considers juice extractors at citrus processing facilities to be process equipment, not emissions units. There is no stack or emission point associated with the juice extraction process, and the process equipment is not designed or intended to emit air pollutants. The juice extraction process and subsequent conveying of its products are enclosed and provide little opportunity for fugitive emissions of

the only pollutant potentially emitted, VOC from citrus oil. VOC may escape the process equipment in small amounts that are fugitive in nature and not directly quantifiable; the odor of citrus fruit is typically present in the extractor room of citrus processing facilities, which would indicate the presence of aromatic oils in the air. However, this may also be the result of fruit washing, grading and conveying prior to the fruit entering the extractors. The Department believes the potential emissions of VOCs from the extractors are very low, although there is no data quantifying these emissions. Control of these emissions is already accomplished by the enclosures intrinsic to the juice extractors, and further control is not reasonable. Although this project results in a physical change to the facility by the addition of the three juice extractors, the applicant is not constructing emissions units. The applicant requested the relaxation of current federally enforceable throughput limits for three existing 24,000 gallon d-limonene storage tanks, from 500,000 gallons to 1,000,000 gallons per year; and removal of the existing VOC emissions limit of 3636.8 pounds per year (1.82 TPY). The existing tanks are enclosed, maintained in good condition, and painted a light color. Because potential emissions of VOC from the tanks are inherently small (future potential emissions are 2.49 TPY per the TANKS model), there are no add-on control technologies available to reduce emissions further in a cost effective manner, and the Department is not requiring a more detailed BACT analysis or installation of control technology for VOC emissions from the tanks. The Department is requiring that the tanks be maintained in good condition and not painted a dark color as BACT. No other existing emissions units are undergoing construction or modification, as defined by Department rule. Since BACT applies only to those emissions units that undergo construction or modification, BACT does not apply to any of the other emissions units at the facility for this project.

The permit allows the installation of the juice extractors, but imposes facility-wide limitations on citrus fruit processing capacity and citrus oil recovery of the facility to limit potential emissions from the facility's existing emissions units, and also imposes specific requirements to limit potential emissions of particulate matter from the peel dryer and pellet coolers to conform to the assumptions used in performing impact modeling which provide for PSD increment values for PM_{10} to not be exceeded. The permit allows the requested change in the annual throughput limit of d-limonene for the three existing storage tanks from 500,000 gallons to 1,000,000 gallons per consecutive 12 month period. The permit removes the existing VOC emissions limit from these tanks because the original limits were not imposed to avoid any regulatory requirement, and there was no compliance requirement associated with the emission limits other than maintaining throughput records. The four existing fuel oil storage tanks, which are included with the d-limonene tanks in emissions unit 006, were previously limited to total VOC emissions of 136.9 pounds per year. Although not specifically requested by the applicant, the Department removed these limits as well in this permit; existing fuel oil throughput limits are not changed by this permit so potential emissions will not increase. Emissions from the tanks will continue to be tracked as required by the Department's annual operating report requirements. No NSPS requirements for the storage tanks are changed by this permit. This permit does not change any limit imposed by previous permits for the steam generating units or lime silo at the facility.

In addition to the information submitted by the applicant in its application and that information mentioned above, the Department may rely upon other available information in making its BACT determination. For this project, the Department also relied upon its own interpretation of its rules, to which this source is subject. Although the Department believes that its rules and not federal rules are the pertinent rules for this review, the Department also reviewed EPA's guidance regarding the application of BACT and debottlenecking. The Department's BACT determination documented above is based on this information and the informed judgement of the Department.

6 MACT DETERMINATION

As discussed in Section I of the permit, although the applicant indicated that the facility is a major source of HAP emissions, this facility is not subject to a case-by-case MACT determination for control of emissions of HAPs. The applicant is not required to provide, and did not provide, estimated annual potential emissions of regulated hazardous air pollutants (HAPs).

Rule 62-204.800(10)(d)2, F.A.C., generally requires a MACT review for all major sources of HAPs that are to be constructed or reconstructed. In this case, no source of HAPs is proposed to be constructed or reconstructed, so this project is not subject to a case-by-case MACT determination.

7 EXCESS EMISSIONS AND COMPLIANCE REQUIREMENTS

Excess emissions are not changed or limited by this permit except for the pellet coolers, emissions units 004, 005 and 009, which are allowed no permitted excess emissions for startup and shutdown.

The permit imposes limitations on process rates and emissions to limit potential emissions to those levels described in the permit upon which impact analyses were conducted. Specific requirements and compliance methods are detailed in Sections II and III of the permit.

8 PRELIMINARY DETERMINATION

Based on the foregoing technical evaluation of the application submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations. The Department's preliminary determination is to issue the draft permit to allow installation of three additional juice extractors, subject to the terms and conditions of the draft permit.

9 FINAL DETERMINATION

The Department distributed the intent to issue on October 11, 2000. The Public Notice of Intent to Issue Air Construction Permit was published in the Clewiston News on October 18, 2000.

No comments were received by the Department from the public.

Comments were received from EPA Region 4 by letter dated November 16, 2000. Related to review of the technical documents, EPA commented regarding the years selected for the netting analysis, the bases for exemption from ozone and PM₁₀ preconstruction ambient monitoring, and the need for including wet peel accepted from offsite sources in the fruit throughput limitation. The first comment requires no response, the second which concerned preconstruction monitoring requirements was addressed as part of the Department's further review of the ambient impact analyses, and the third was addressed by adding clarifying language to specific condition 28 of Section II of the permit that reads:

Any wet peel received from any offsite source, expressed as the equivalent boxes of fruit derived from production records of the offsite source, shall be included in the throughput limitation of specific condition 27, above.

Related to review of the air quality impact assessment, EPA commented on the emission rates used in the modeling analyses, the site boundary, the increment receptor spacing and need for refined modeling, the operational hours assumed, and the Class I analyses. These comments are addressed below as part of the Department's further review of the ambient impact analyses.

TECHNICAL EVALUATION AND BACT DETERMINATION

In response to EPA's comments, the Department requested that the applicant provide further supporting information and the Department performed further review of the ambient impact analyses, including this additional supporting information received December 1, 2000. The Department concluded that the terms of the draft permit are acceptable. The applicant provided revised modeling impacts for all pollutants in the PSD Class II area. The results of the applicant's revised modeling are shown in the following two tables and show very small changes from previously modeled values reported in the Department's Technical Evaluation and Preliminary Determination (TEPD):

AAQS ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m ³)	Background Conc. (ug/m ³)	Total Predicted Impact (ug/m ³)	AAQS (ug/m ³)	Impact Greater Than AAQS?	Change (ug/m ³)
PM ₁₀	Annual	3	23	26	50	NO	1
	24-hour	24	38	62	150	NO	2
CO	8-hour	1029	3333	4362	10000	NO	158
	1-hour	2115	5555	7670	40000	NO	90
SO ₂	Annual	6	5	11	60	NO	0
	24-hour	78	13	91	260	NO	0
	3-hour	168	47	215	1300	NO	0

PSD CLASS II INCREMENT ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m ³)	Allowable Increment (ug/m ³)	Impact Greater Than Allowable Increment?	Change (ug/m ³)
PM ₁₀	Annual	2	17	NO	1
	24-hour	24	30	NO	2
SO ₂	Annual	3	20	NO	0
	24-hour	77	91	NO	0
	3-hour	169	512	NO	1

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review unless otherwise exempted or satisfied. The monitoring requirement may be satisfied by using existing representative monitoring data, if available. An exemption to the monitoring requirement may be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimus concentration. EPA commented on the basis of the preconstruction ambient monitoring exemptions for PM10 and ozone. The project's PM10 impact was incorrectly reported as less than the de minimus concentration and the project's ozone impacts (based on VOC emissions) were not addressed in the Department's TEPD. Neither pollutant was exempted from preconstruction ambient monitoring on the basis of less than de minimus impacts. However the preconstruction monitoring requirements for these pollutants were satisfied by using existing representative monitoring data.

Comments were received from the applicant's consultant, Golder Associates Inc., by letter dated November 16, 2000. The consultant requested minor changes to the permit language to clarify requirements and correct a typographical error. The Department generally made the changes in accordance with the applicant's request. In this letter, the applicant's consultant proposed methodologies for performing material balances required by the permit. Pursuant to the requirements of the permit, the Department will respond to these proposals through a separate letter.

TECHNICAL EVALUATION AND BACT DETERMINATION

The Department determined that one minor change was required to the permit text to clarify requirements of specific condition 8 of Section II. The Department revised this paragraph to note that revision of the Title V permit was required to also reflect new limitations on the VOC tanks.

The above changes are not significant enough to require a new public notice.

The final action of the Department is to issue the permit with the changes described above.

DETAILS OF THIS ANALYSIS MAY BE OBTAINED BY CONTACTING:

Joseph Kahn, P.E.
Department of Environmental Protection
Bureau of Air Regulation
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114

Recommended By:

Approved By:

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Howard L. Rhodes, Director
Division of Air Resources Management

Date:

Date:



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

December 1, 2000

Mr. Tristan Chapman
VP and General Manager
Southern Gardens Citrus Processing Corp.
PO Box 130
Clewiston, Florida 33440

Re: Methodologies for Citrus Oil Material Balance and Dryer Throughput Material Balance
Permit PSD-FL-299, 0510015-007-AC

Dear Mr. Chapman:

We have reviewed a letter dated November 16, 2000 from David Buff, P.E., of Golder Associates Inc. proposing methodologies for determining oil contents pursuant to specific condition 28 in Section II of permit number PSD-FL-299. Mr. Buff proposed measuring the oil contents of incoming fruit and dried pellets on a twice per week basis, and using the average of those two results to determine the daily mass of oil in those materials until the next week's average is determined. The oil contents will be determined using the Braddock sample preparation method and the Scott Oil method, as described in the attachment to that letter. The amount of dried pellets produced each day will be estimated from the measured weight of pellets loaded out each day from the pellet warehouse. We agree with the sampling and analysis methods proposed with the exception of the sampling frequency of incoming fruit. We believe that the oil content of incoming fruit should be determined on a daily basis, at least for the first fruit season. After this first season, Southern Gardens may compare the weekly averages obtained from daily measurements with the averages that would be obtained using two specific days each week, and if there is no significant difference, may propose to reduce the frequency to two days per week for the subsequent processing seasons. Approval of that change would be by letter from the Department's Division of Air Resource Management.

The letter also proposed a material balance to demonstrate compliance with the daily average peel dryer throughput limitation of specific condition 2 and averaging requirement of specific condition 4 of Section III, Subsection B. Daily throughput of pressed peel would be estimated by measuring the dried pellets loaded out each day from the pellet warehouse, and relating pellet production to pressed peel throughput using the moisture contents of the pressed peel and dried pellets measured on a daily basis. This methodology appears satisfactory.

Please contact me at 850-921-9519 if you have any questions about the above.

Sincerely,

Joseph Kahn, P.E.
New Source Review Section

/jk


cc: Ron Blackburn, DEP SD (w/ copy of Golder letter)
David Buff, P.E., Golder Associates Inc.

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Florida Department of
Environmental Protection

Memorandum

To: Al Linero
From:  Joe Kahn
Date: August 20, 2001
Re: Southern Gardens
Application for Addition of Second Peel Dryer and Fourth Pellet Cooler
0510015-008-AC

This project involves the addition of a second citrus peel dryer and fourth pellet cooler at an existing citrus juice processing plant. The application states that this project is not subject to PSD, and the applicant requested a determination of non-applicability. The application was received on July 9, 2001 and a request for additional information was sent on August 8th. Because the application purports to not be subject to PSD no letters requesting comment from EPA and NPS/FWS were sent. No comments were received from the district office.

As part of this application, the applicant is requesting a relaxation of the fruit processing limit of the PSD permit issued for a previous plant expansion, so the relationship of this request to that previous expansion project is one of the outstanding issues. The major issues noted in the request for additional information were related to the issue of PSD applicability, although the applicant was given the choice of alternatively requesting the Department issue a minor source permit pursuant to the MOU with the FCPA, without addressing the issue of PSD applicability. Please read the request for additional information carefully as it outlines this choice. I discussed the request for additional information with David Buff on August 13th, and can provide information about our discussion if you wish.

Status: Awaiting additional information.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

August 8, 2001

Certified Mail – Return Receipt Requested

Mr. Tristan Chapman
Vice President and General Manager.
Southern Gardens Citrus Processing Corporation
Post Office Box 130
Clewiston, Florida 33440

Re: Request for Additional Information
DEP File No. 0510015-008-AC
No. 2 Citrus Peel Dryer/WHE and No. 4 Pellet Cooler

Dear Mr. Chapman:

On July 9, 2001 the Department received your application and complete fee for an air construction permit for the addition of a second citrus peel dryer/waste heat evaporator combination and a fourth pellet cooler, and associated appurtenances at the existing citrus juice processing facility. The application is incomplete. In order to continue processing your application, the Department will need the additional information requested below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

The application was primarily based upon the limits required under the citrus legislation, but the application included a request for review of PSD applicability. However, the current memorandum of understanding (MOU) between the Department and the Florida Citrus Processors Association does not provide for the Department making a determination of PSD non-applicability when processing applications pursuant to the requirements of the legislation. To continue processing this application, you must choose the manner in which you wish the Department's review to proceed. Respond by providing the information requested by either item 1 or 2 below.

1. In order to address your request for a determination regarding PSD applicability, please provide all information necessary to make such a determination. The application included a comparison of the current allowable emissions to the future potential emissions, but this comparison did not meet the requirements, and did not provide sufficient detail, for a PSD applicability analysis. Note that the facility has begun normal operations, even if it does not have a two year period of operation at the current processing capacity of 20 million boxes per year. Please include as a minimum:

- Past actual emissions for the previous five year period with all supporting information;
- All supporting information for the estimated future potential emissions, including a material balance for citrus peel oil;
- A complete discussion of the relationship of the previous expansion project to the current expansion request;
- A complete discussion of the company's plans for further expansion within the near future;
- An analysis of the processing capacity of the existing and proposed production equipment, from fruit receiving and handling through juice and byproduct production and feed mill operations;

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Mr. Tristan Chapman
August 8, 2001
Page Two

- An analysis of equipment bottlenecks and the relationship of those bottlenecks to future production capacity and expansion plans;
- Information to support the capacities of the proposed dryer and WHE (note that the Title V permit for the facility which previously used the equipment shows a dryer design input capacity of 36 TPH and an output capacity of 12 TPH at 10 percent moisture, and two WHE units associated with that dryer with design evaporative capacities of 50,000 and 60,000 lb/hr);
- A summary or chart of the range of process input weights of pressed peel at possible moisture percentages, based on the evaporative capacity of the proposed dryer and the proposed production rate of 18.5 tons per hour of BDP (note that the application shows a process input weight of 47 tons per hour of pressed peel);
- Supporting information for the production factor of 8.2 lb BDP per box of fruit;
- Supporting information for the inlet loading used in the control efficiency calculation of attachment SG-EU1-J3; and,
- The increase in potential HAP emissions associated with this project.

2. Alternatively, you must confirm that you are requesting that the Department process your application pursuant to the requirements of section 403.08725, Florida Statutes, per the MOU. You may also specify any additional requirements you wish to have incorporated into the construction permit that you believe may be necessary to prevent your project from being subject to PSD, in the event that the statutory requirements do not apply in the future as a result of EPA's review of those requirements. If you pursue this option, the Department will not make any determination of PSD applicability as part of processing this application. Note that the statute regulates PM₁₀ and PM as one pollutant, so the process weight limitation of Rule 62-296, F.A.C., will not apply with this option.

The Department will resume processing your application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the state of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Material changes to the application should also be accompanied by a new certification statement by the authorized representative or responsible official. Permit applicants are advised that Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within 90 days. If there are any questions, please call me at 850/921-9509.

Sincerely,



Joseph Kahn, P.E., Administrator
Emissions Monitoring Section
Bureau of Air Monitoring
and Mobile Sources

/jk

cc: Mr. David Buff, P.E., Golder Associates Inc.
Mr. Ron Blackburn, South District

Golder Associates Inc.

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



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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

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**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**

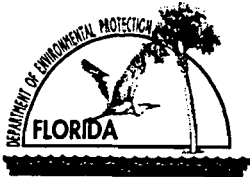
Prepared By:

**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)

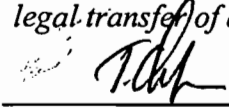
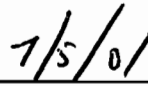
- Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a 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  _____ 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:

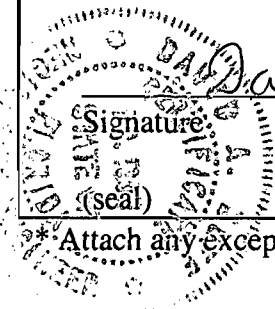
(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions 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. Buff

Signature

7/6/01

Date

*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

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

Title V Core List

Effective:03/25/97

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

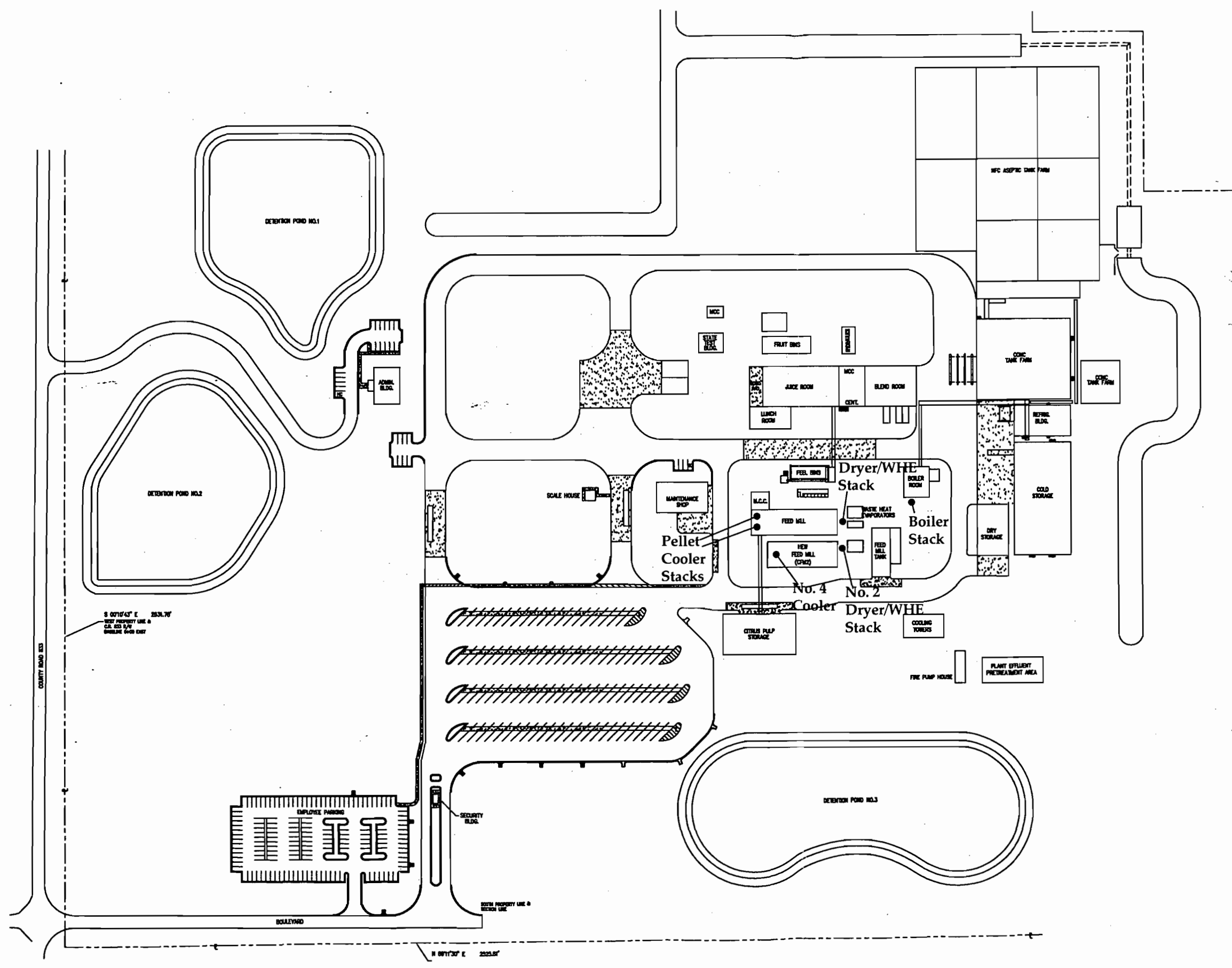


ATTACHMENT SG-FE-2
FACILITY PLOT PLAN

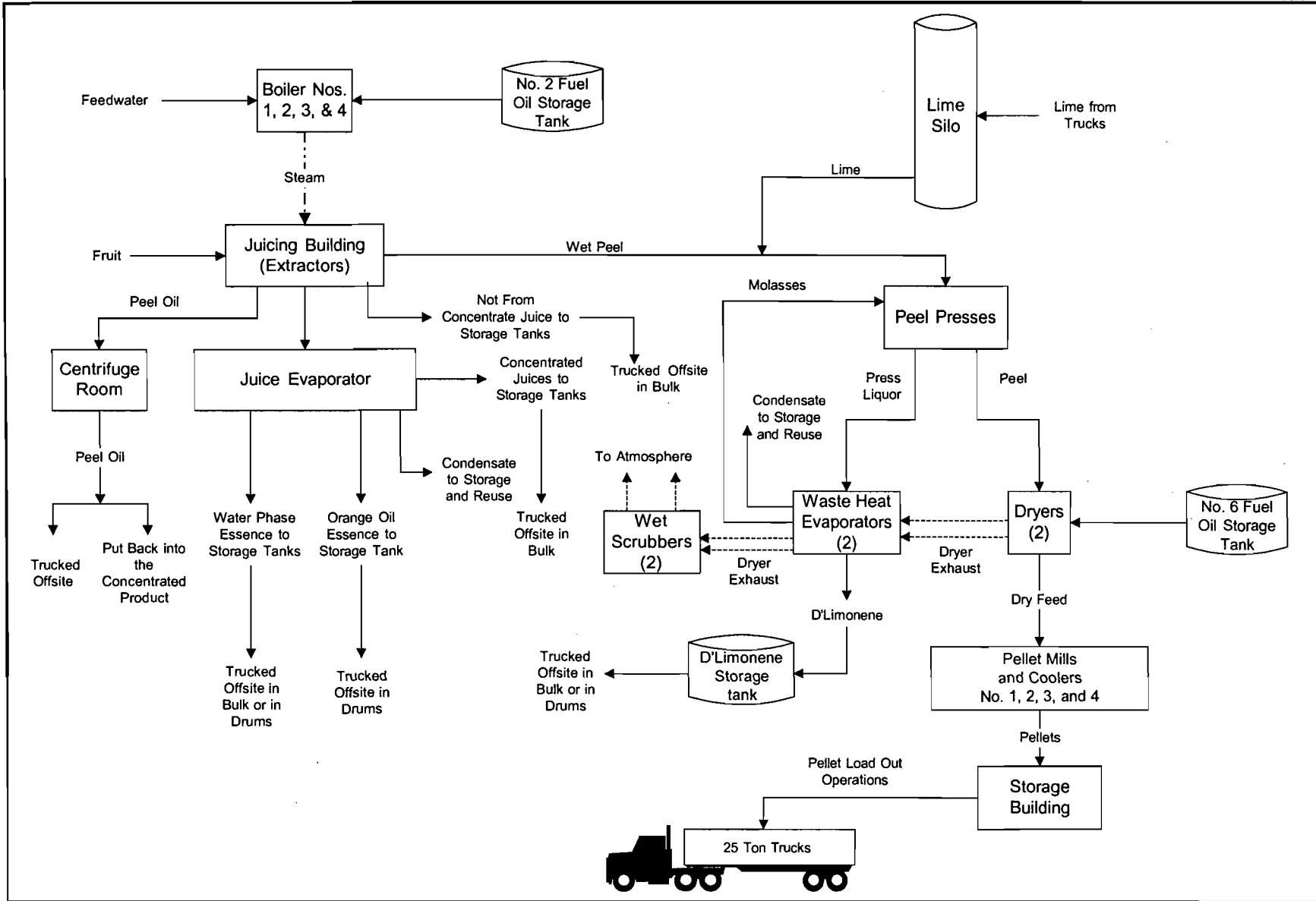


Legend

- 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

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:	
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 45 tons/year		4. Synthetically Limited? [X]	
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"/>	
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"/>]	
		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 [<input checked="" 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): 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

 Attached, Document ID: _____ Not Applicable

12. Alternative Modes of Operation (Emissions Trading)

 Attached, Document ID: _____ Not Applicable

13. Identification of Additional Applicable Requirements

 Attached, Document ID: _____ Not Applicable

14. Compliance Assurance Monitoring Plan

 Attached, Document ID: _____ Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

 Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: _____ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID: _____ Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID: _____ 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.

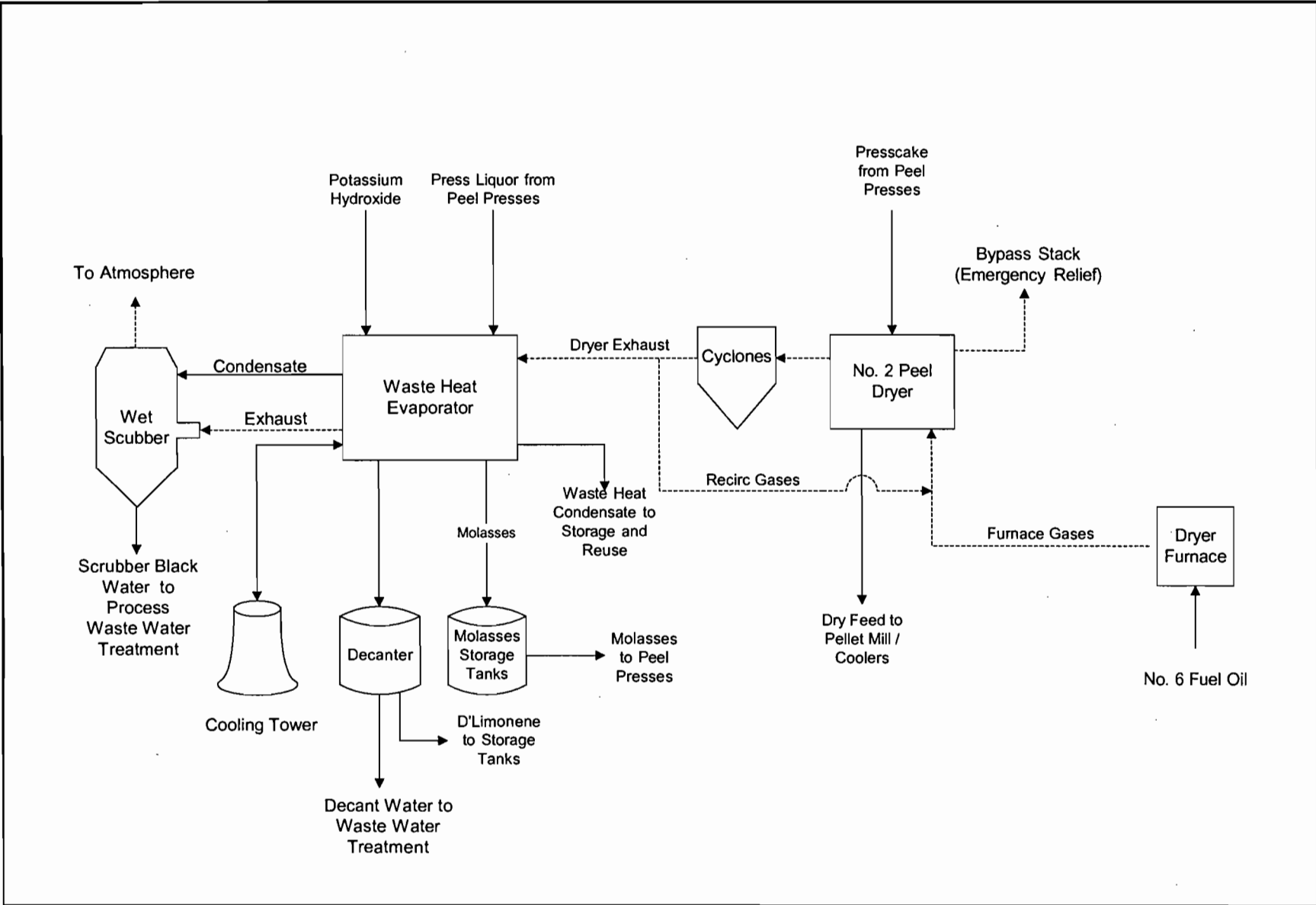
^b Based on 84 MMBtu/hr and 6,000 hours per year or 22.5 million boxes per year and 8.2 lb BDP/box.

BDP = bone dry peel

References:

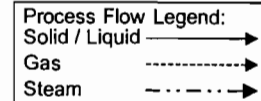
1. Maximum emission rate based on Process Weight Formula, $E = 17.31E^{0.16}$, where E is in lb/hr and P = 47 TPY throughput rate [62-296.320(4)(a), F.A.C.].
2. Particulate matter (PM₁₀) emission factor for citrus peel dryers from FLL 403.08725(2)(e)1.
3. Based on emission limit of existing peel dryer/WHE. 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).
4. Nitrogen oxide emission factors for sources that fire fuel oil from FLL 403.08725(2)(f)1.b.
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.

**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



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 ^a

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:

^a 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:		<input checked="" type="checkbox"/> No ID	
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):		
	Maximum rates relate to total pounds of citrus peel.	

**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(2), F.A.C. General Compliance Test Requirements
62-297.310(4)(a), F.A.C. General Compliance Test Requirements
62-297.310(5), F.A.C. General Compliance Test Requirements
62-297.310(7)(a)1., F.A.C. General Compliance Test Requirements
62-297.310(7)(a)3., F.A.C. General Compliance Test Requirements
62-297.310(7)(a)4.a., F.A.C. General Compliance Test Requirements
62-297.310(7)(a)9., F.A.C. General Compliance Test Requirements
62-297.310(8), F.A.C. General Compliance Test Requirements
62-297.401(9), F.A.C. EPA Method Nine
FLL 403.08725(1) Compliance Requirements
FLL 403.08725(2)(c) Permitted Emission Limits
FLL 403.08725(2)(e)2. Permitted Emission Limits
FLL 403.08725(2)(g)2. 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)(h) 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: 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):		

**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
PM ₁₀			EL
VOC			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: 5.0 lb/hour		4. Synthetically Limited? [<input checked="" type="checkbox"/>]	
		15.0 tons/year	
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		4. Synthetically Limited? [<input checked="" type="checkbox"/>]	
		15.0 tons/year	
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)(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: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 119.3 lb/hour		4. Synthetically Limited? [<input checked="" type="checkbox"/>]	
		227.1 tons/year	
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 NO _x Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NO _x 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:

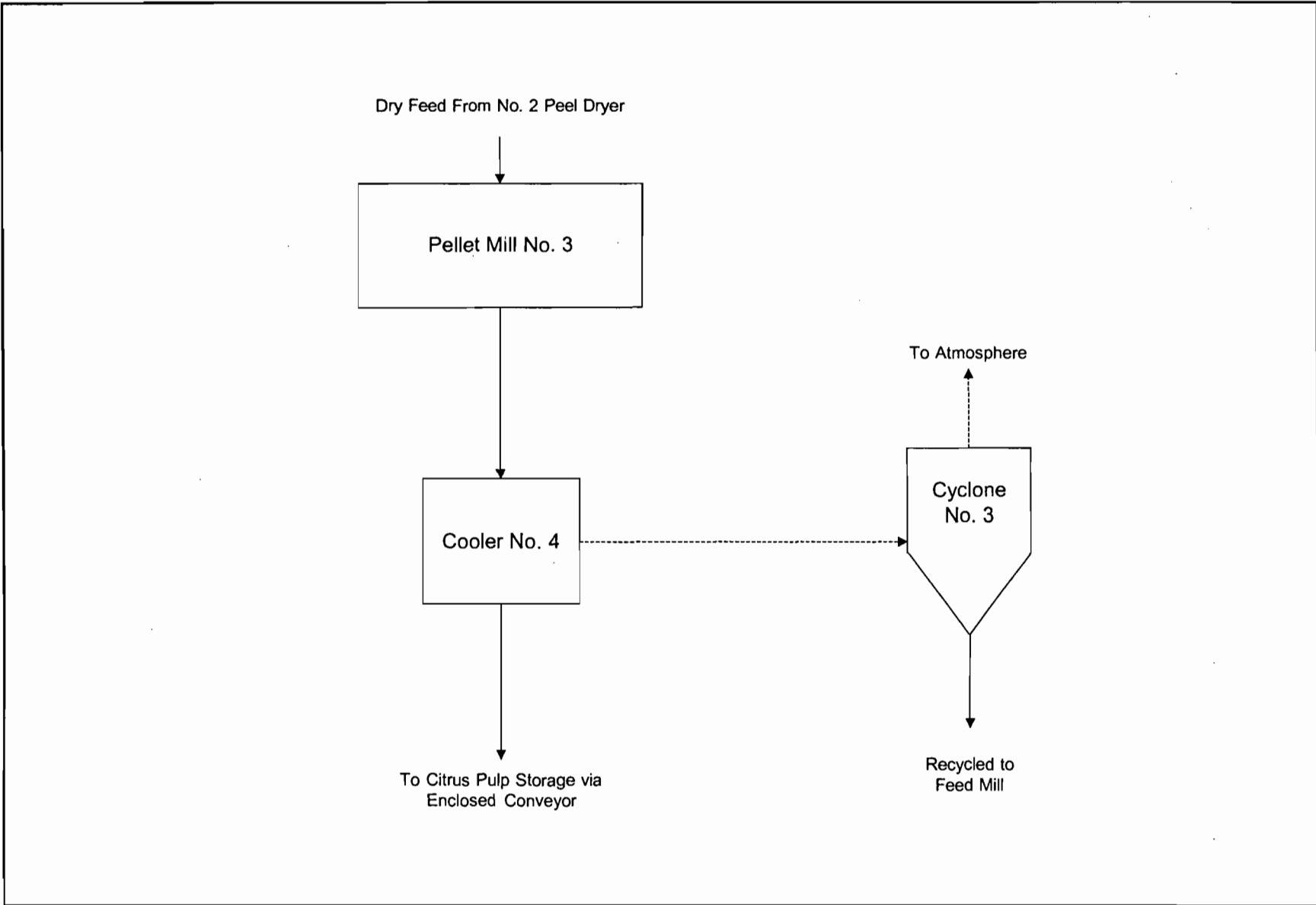
 Early/Mids -- 0.4275 lb oil/box and a hourly minimum of 50% oil recovery (51.67% overall oil recovered/juice/sewered).

 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. SGPC already complies with the 50 percent recovery oil requirement since it is a requirement of the existing PSD permit. SGPC 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, SGPC can fire fuel oil with a maximum of 1.0 percent sulfur by weight since SGPC does not have access to natural gas. SGPC 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 SGPC facility since the annual amount of fruit processed will increase.

SGPC 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, SGPC 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, SGPC 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." SGPCPC is relocating a portion of a process or production unit- the peel dryer/WHE. The entire citrus processing facility is not being relocated. Thus, SGPCPC 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 SGPCPC 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 Compounds	1,816.5	227.1	2,043.5

Table 2-2. Future Potential 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	PSD Review Applies?
				Significant Emission Rate (TPY)	
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).

Legend

- Stack Location

