**Golder Associates Inc.**

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

November 5, 2001

0137582

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

RECEIVED
NOV 07 2001
BUREAU OF AIR REGULATION

Attention : Mr. Scott Sheplak, P.E.

RE: Southern Gardens Citrus Processing Corp. (SGCPC)
Permit No. 0510015-007-AC; PSD-FL-299
Addition of Three Juice Extractors

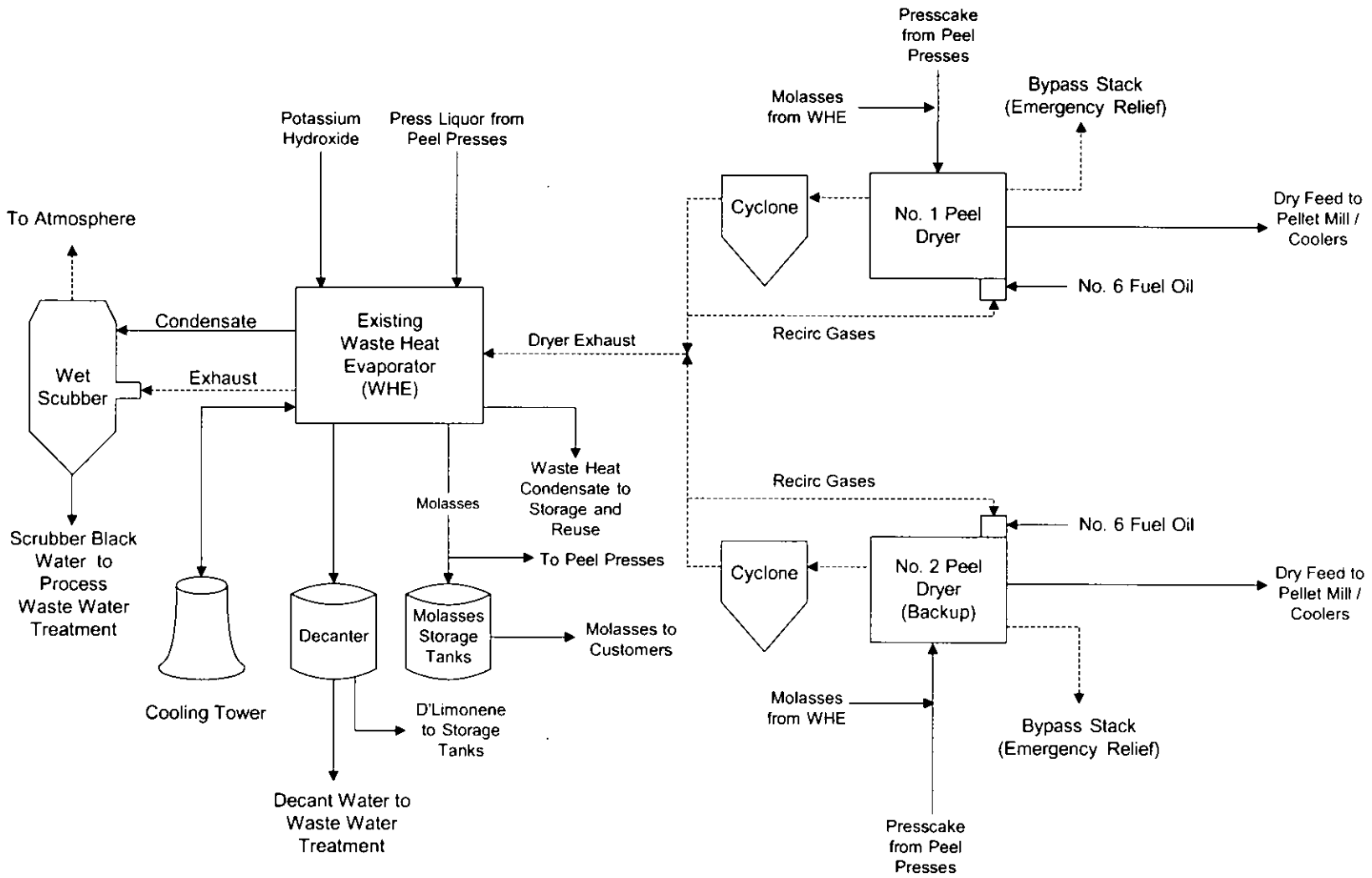
Dear Mr. Sheplak:

Southern Gardens Citrus Processing Corporation (SGCPC) recently applied for several revisions to Final Permit No. 0510015-007-AC/PSD-FL-299 issued on December 4, 2000. These changes were requested in letters to the Department dated August 7, 2001 and September 20, 2001. In the August 7 letter, it was requested that the limitation on the peel dryer process input rate be changed from 47 tons per hour (TPH) of pressed peel to 18.5 TPH of bone-dry peel (BDP). The reason for this request was that all of the emissions in the original PSD application for the three juice extractors were based on BDP input to the dryer.

Based on my discussions with Mr. Bruce Mitchell of your staff, the Department is reluctant to change the basis of the peel dryer limitation, since no other citrus processing plants in Florida currently have peel dryer input limits in terms of BDP. The purpose of this letter is to provide additional information in regards to this request and to offer alternative limits based on wet peel input.

A review was conducted of all current Title V permits for citrus plants in Florida. The results of this review are presented in the attached table, for your reference. About 25 citrus plants are currently permitted. All peel dryer capacity limits are based on wet (pressed) peel input. Of these, 10 plants do not have any hourly capacity limitation, but instead have a monthly or 12-month rolling average limitation on wet peel input. Some of these 10 plants have a maximum hourly input rate specified under the particulate matter (PM) emission standards, for testing and hourly/annual emission limit purposes. For several of these plants, the 12-month rolling average limitation was taken to avoid PSD review.

In the original extractors PSD application for SGCPC, a maximum process rate of 47 TPH pressed peel was shown on the application form and was stated in the report with the PSD application. In the application form, this rate was qualified as based on 74-percent moisture. In the PSD report, it was qualified as "approximately 47 TPH at 74 percent moisture". Therefore, it was recognized that input rates could vary based on moisture content. Unfortunately, SGCPC did not object to this limit in the final permit that was issued. Nevertheless, as discussed previously, all emissions in the application were based on 18.5 TPH BDP input or the maximum 84 MMBtu/hr heat input to the dryer, and not 47 TPH pressed peel input.




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

*Process Area:* Backup No. 2 Peel Dryer Evaporator

*Filename:* SG-EU1-J1.VSD

*Latest Revision Date:* 11/5/01

Process Flow Legend:
Solid / Liquid
Gas
Steam

Golder Associates

It is also noted that molasses from the process may or may not be added onto the peel press cake prior to entering the peel dryer. This was indicated on the flow diagram of the facility and the feed mill in the original PSD permit application. Historically, until last season, SGCPC normally added recovered molasses back onto the peel. Last season, however, it became more economical to sell the molasses as a separate byproduct. Whether molasses continues to be sold separately or is combined back with the pressed peel will depend on economics.

The molasses stream is large in volume and can add a significant amount of additional solids into the peel press cake. Molasses is about 50-percent moisture; therefore, adding molasses to the press cake lowers the overall moisture content of the press cake (the press cake is typically around 70-percent moisture). As described below, lowering press cake moisture allows greater weight of press cake through the peel dryer.

If the Department deems it appropriate to retain the dryer capacity limitation based on pressed peel input, then SGCPC requests that the limitation be changed to more correctly reflect the potential total input to the dryer, i.e., pressed peel plus molasses. The current hourly limitation on the dryer only relates to "pressed peel".

The attached Table 2 presents SGCPC peel dryer input rates in terms of dryer evaporation rate, pressed peel input rate (can include molasses), peel moisture content, and the corresponding bone dry peel input rate. SGCPC's dryer is designed for 60,000 lb/hr water evaporation rate. Based on this water evaporation rate, the potential input rate to the dryer becomes a function of moisture content of the pressed peel/molasses. The pressed peel/molasses input rate changes rapidly with moisture content, due to the high moisture contents associated with citrus peel. Also note that up to 54.3 TPH of pressed peel/molasses could be processed if moisture content is low enough (i.e., 62 percent). This low moisture content is possible if the pressed peel moisture content is about 65 percent, and molasses is being added to the peel.

It is important to note that, as peel moisture content is lowered, additional pressed peel can be accommodated by the dryer. All citrus processors today are striving to make process improvements to lower pressed peel moisture content. The feed mill operations are currently losing money. Therefore the goal is to process more peel through the dryer at lower cost. Lowering the peel moisture content saves energy, allows higher peel throughput thus lowering the operating hours of the dryer, and lowers overall operating costs.

In addition, the environment benefits in several ways. First, lower peel moisture content translates to less citrus oil in the peel. This leads directly to lower VOC and CO emissions out the dryer/waste heat evaporator stack. Secondly, less energy is consumed by the dryer, improving energy efficiency and lowering combustion-related emissions.

Based on the foregoing discussion, SGCPC requests the following changes in regards to capacity limitations on the peel dryer:

1. Remove the hourly throughput limitation, and replace it with the previous short-term limitation on the peel dryer of 84 MMBtu/hr (daily average).

2. Set a new annual capacity limitation on the dryer based on the 20 million box capacity limitation for the plant. The limitation is based on the historic maximum amount of pellets produced in the feed mill at SGCPC, plus a margin to account for variability.

This historic maximum is approximately 10 lb of dried pellets @ 15-percent moisture per box of fruit processed (this figure includes molasses added back into the peel). Assuming the average moisture of the pressed peel is 74 percent (worst case on annual basis), and using 10.5 lb pellets/box of fruit, the specific limitation is 343,000 TPY of pressed peel/molasses, derived as follows:

10.5 lb pellets/box @ 15% moisture x (1-0.85) = 8.93 lb/box bone dry

8.93 lb/box x 1/(1-0.74) = 34.3 lb pressed peel/box @ 74% moisture

20 million boxes/yr x 34.3 lb/box x ton/2000 lb = 343,000 TPY pressed peel

This request in no way affects the actual capacity of the peel dryer. No change in the maximum heat input to the dryer of 84 MMBtu/hr is being requested. It will not affect the annual rate through the dryer, since this is limited by the 20 million boxes of fruit cap on the facility. This request does not increase hourly or annual potential emissions from the facility. Approving this change will allow SGCPC to become more efficient in its operations, and potentially reduce air emissions.

In order that the potential hourly and annual PM emissions from the peel dryer are not increased, SGCPC is also proposing to place a cap on PM emissions at 32.05 lb/hr and 96.15 TPY. This is the current limitation based on the process rate of 47 TPH and using the process weight table. At process rates lower than 47 TPH, the process weight table would still govern. However, at process rates above 47 TPH, PM emissions would be limited to 32.05 lb/hr.

Please find attached a responsible official and P.E. signature page, as well as updated pages from the extractors PSD application. The flow diagrams have been revised to show that molasses can also be sent off-site to customers.

Thank you for consideration of this requested revision to the PSD permit. Please call or e-mail me if you have any questions concerning this information.

Sincerely,
Golder Associates Inc.

David A. Buff

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

DB/jkw

Attachments

cc: Derek Pridgen
Olga Rodriguez
Lisa Gefen

P:\Projects\2001\0137582 Southern Gardens\4\4.1\L110501.doc

Table 2. Calculation of Maximum Peel Dryer Process Rates, Southern Gardens

| Parameter | Process Rate | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Moisture removal in dryer (lb/hr)* | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 |
| Pressed peel input rate (TPH) | **54.26** | **52.06** | **50.00** | **48.13** | **46.37** | **44.75** | **43.23** | **41.79** |
| Pressed peel moisture (%) | 62 | 64 | 66 | 68 | 70 | 72 | 74 | 76 |
| Total moisture input (lb/hr) | 67,286 | 66,631 | 66,000 | 65,450 | 64,913 | 64,440 | 63,982 | 63,523 |
| Pressed peel input rate (TPH bone dry peel) | 20.62 | 18.74 | 17.00 | 15.40 | 13.91 | 12.53 | 11.24 | 10.03 |
| Dried peel mositure (%)** | 15.0% | 15.0% | 15.0% | 15.0% | 15.0% | 15.1% | 15.0% | 14.9% |
| Moisture remaining in dry peel (lb/hr) | 7,286 | 6,631 | 6,000 | 5,450 | 4,913 | 4,440 | 3,982 | 3,523 |
| Total dried peel production rate (TPH) | 24.26 | 22.06 | 20.00 | 18.13 | 16.37 | 14.75 | 13.23 | 11.79 |

* Design water removal rate for peel dryer.

** Dried peel existing the dryer normally in 13%-15% range. Using highest moisture results in greatest pressed peel input rate.

Table 1. Summary of Permitted Peel Dryer Capacities, Florida Citrus Industry (October 2001)

| Facility | Formerly Named | City | County | Title V Permit No. | Number of Peel Dryers | Capacity Limitation |
|---|---|---|---|---|---|---|
| A. Duda & Sons/Citrus Belle | | Labelle | Hendry | 0150004-001-AV | 1 | 12.3 TPH BDP/ 35 TPH wet peel/ 7.5 million boxes* |
| Cargill Citro Pure | Cargill Citro-America | Frostproof | Polk | 1050019-003-AV | 1 | 51.0 TPH pressed peel (daily avg) |
| Cargill Citro Pure | Indian River Foods | Ft. Pierce | St. Lucie | 1110018-003-AV | 1 | 140,000 TPY * |
| Cargill Citro Pure | SunPure | Avon Park | Highlands | 0550035-005-AV | 1 | N/A:"Normal operating capacity, approximately 14 TPH." |
| Citrus Service | | Brooksville | Hernando | 0530004-003-AV | 1 | 10 TPH wet peel (daily avg) |
| Citrus World | | Lake Wales | Polk | 1050002-003-AV | 3 | 40/ 80/ 88.6 TPH pressed peel (daily avg) |
| Citrosuco North America | Alcoma Packing | Lake Wales | Polk | 1050001-001-AV | 2 | 50 TPH each dryer (daily avg);<br>285,700 TPY* pressed peel for both dryers |
| Cutrale Citrus Juices | | Auburndale | Polk | 1050023-002-AV | 2 | 55/ 55 TPH (daily avg) |
| Cutrale Citrus Juices | | Lessburg | Lake | 0690002-003-AV | 1 | 457,272 TPY* |
| Florida Global Citrus | SFE Citrus Porcessors | Auburndale | Polk | 1050037-001-AV | 1 | 62 TPH pressed peel |
| Florida Select Citrus | | Groveland | Lake | 0690001-001-AV | 1 | 95,795 TPY wet peel*+; 19.55 TPH under PM standards |
| Goldem Gem Growers | | Umatilla | Lake | 069005-001-AV | 1 | 237,888 TPY wet peel*; 47.2 TPH under PM standards |
| Holly Hill | | Davenport | Polk | 1050061-001-AV | 1 | 28.4 TPH wet peel (daily avg) |
| Louis Dreyfus Citrus | Caulkins Indiantown | Indiantown | Martin | 085000-003-AV | 2 | 27/ 39 TPH; 4,500 hr/yr combined operation |
| Louis Dreyfus Citrus | Winter Garden Citrus | Winter Garden | Orange | 0950053-002-AV | 2 | 185,490 TPY*+ (cobined operation) |
| Met Life Insurance Company | Fla. Juice Partner/ US Beverage | Lakeland | Polk | 1050015-005-AV | 1 | 36.0 TPH wet peel (daily avg) |
| Ocean Spray Cranberry | | Vero Beach | Indian River | 0610021-007-AV | #1<br>#2<br>#1+#2 | 95,256 TPY wet peel*; 27.0 TPH under PM standards<br>127,008 TPY wet peel*; 36.0 TPH under PM standards<br>127,008 TPY wet peel* (combined input) |
| Pasco Processing | Orange- Co. | Bartow | Polk | 1050045-004-AV | 2 | 45.0/ 22.5 TPH pressed peel; cannot operate simultaneously |
| Peace River Citrus | | Arcadia | Desoto | 0270003-005-AV | 1 | 32.5 TPH (monthly avg) |
| Silver Springs Citrus | | Howey-in-the-Hi | Lake | 0690014-002-AV | 1 | 122,285 TPY wet peel*; 21.23 TPH udner PM standards |
| Southern Gardens Citrus | | Clewiston | Hendry | 0510015-009-AV | 1 | 47.0 TPH wet peel (daily avg) |
| SunPac Foods | | Winter Haven | Polk | 1050106-001-AV | 1 | 25 TPH pressed peel (daily avg) |
| Tropicana | | Ft. Pierce | St. Lucie | 1110004-002-AV | 2 | 50 TPH pressed peel each dryer (daily avg) |
| Tropicana | | Bradenton | Manatee | 0810007-003-AV | 3 | 50 TPH each- pressed peel |

Footnotes:
* per 12 consecutive months
+ PSD avoidance limit

# 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: | |
| 2. Permit Number: | |
| 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)

[ X ] 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, 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.*

T. Chapman — 10/6/01

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 [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.*

David A. Buff — Signature

11/06/01 — Date

(seal)

* Attach any exception to certification statement.

## Scope of Application

| Emissions Unit ID | Description of Emissions Unit | Permit Type | Processing Fee |
|---|---|---|---|
| 003 | Citrus Feed Mill(Peel Dryer/Waste Heat Evaporator) | AC1A | |
| 004, 005, 009 | Citrus Pellet Coolers | AC1A | |
| 006 | 7 VOC Storage Tanks | AC1A | |
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## Application Processing Fee

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

## Construction/Modification Information

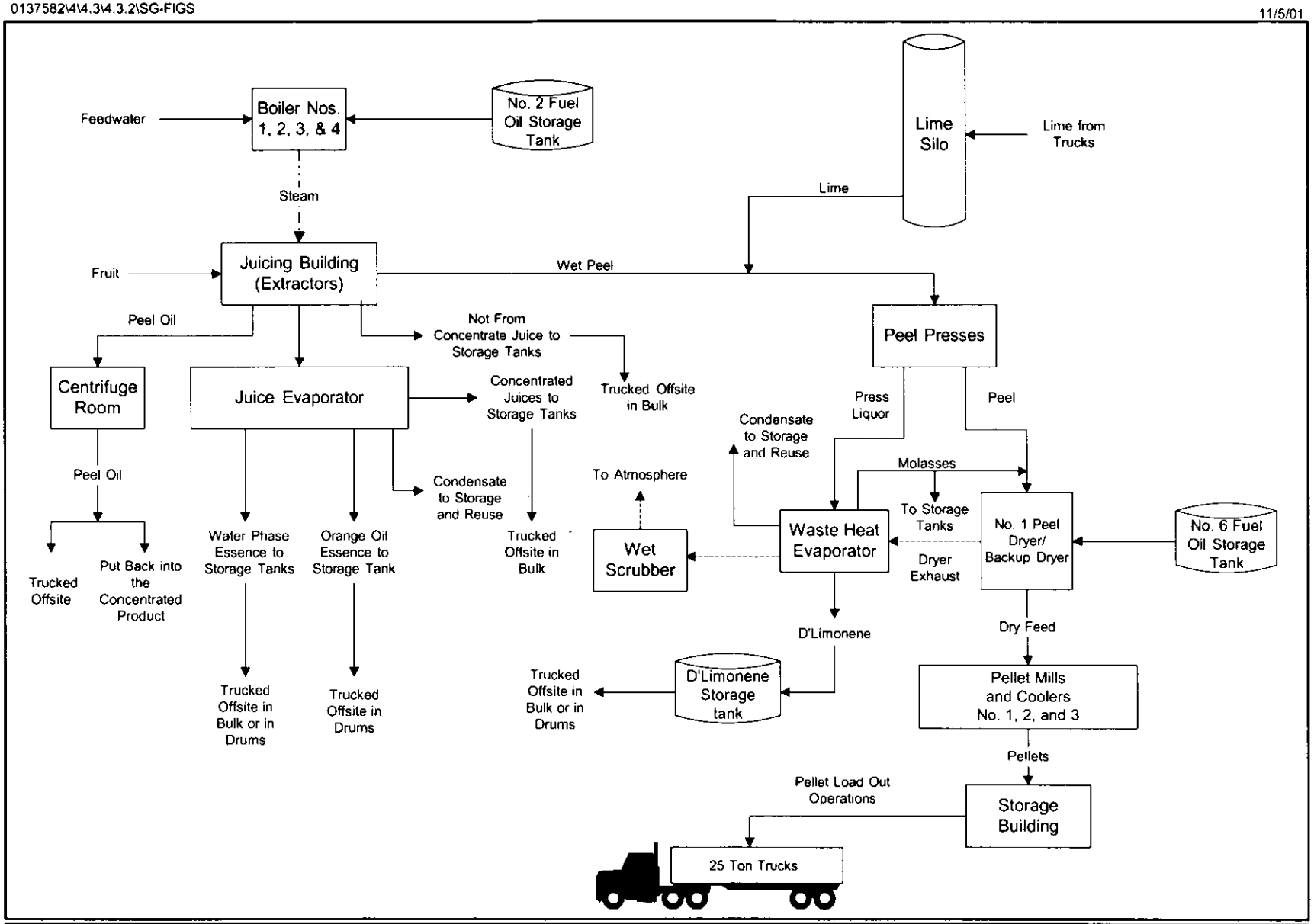
| |
|---|
| 1. Description of Proposed Project or Alterations: |
| 2. Projected or Actual Date of Commencement of Construction: |
| 3. Projected Date of Completion of Construction: |

## Application Comment

**This application is for a revision to the PSD permit for the addition of three (3) extractors (Permit No. 0510015-007-AC/PSD-FL-299).**

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-EU1-J1.VSD

*Latest Revision Date:* 11/5/01

Process Flow Legend:
Solid / Liquid
Gas
Steam

Golder Associates

## 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: | **54.3 TPH** |
| 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): | |

**1. Max Process Rate represents pressed citrus peel and molasses.**
**2. Maximum production rate represents bone-dry peel.**

**See Attachment SG-EU1-B6.**

## 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? [ **X** ] |
| 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. Emissions at process rates higher than 47 TPH are capped at 32.05 lb/hr.** | |

**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: **32.05 lb/hr** | 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. Emissions capped at 32.05 lb/hr.** | |

ATTACHMENT SG-EU1-J1

PROCESS FLOW DIAGRAM

# Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary


September 4, 2001

Certified Mail – Return Receipt Requested

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

Re: Request for Additional Information
DEP File No. 0510015-010-AC
Revisions to Permit No. 0510015-007-AC/PSD-FL-299

Dear Mr. Chapman:

On August 9, 2001 the Department received your letter requesting several revisions to Final Permit No. 0510015-007-AC/PSD-FL-299. The application is incomplete. In order to continue processing your requests, 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.

Please submit at least the first six pages (Section I) of the Department's permit application, DEP Form No. 62-210.900(1), F.A.C., certified by the authorized representative and a Professional Engineer registered to practice in Florida.

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,

Scott M. Sheplak, P.E., Administrator
Title V Section
Bureau of Air Regulation

/raw

cc: Mr. David Buff, P.E., Golder Associates Inc.
Mr. Ron Blackburn, DEP South District

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

7000 0520 0020 9371 1557

Mr. Tristan Chapman

| | |
|---|---|
| Postage | $ |
| Certified Fee | |
| Return Receipt Fee (Endorsement Required) | |
| Restricted Delivery Fee (Endorsement Required) | |
| **Total Postage & Fees** | **$** |

Postmark Here

***Recipient's Name (Please Print Clearly) (To be completed by mailer)***
Mr. Tristan Chapman

***Street, Apt. No.; or PO Box No.***
P.O. Box 130

***City, State, ZIP+4***
Clewiston, Florida 33440

**PS Form 3800, February 2000** **See Reverse for Instructions**

Golder Associates Inc.

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

November 5, 2001

0137582

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

Attention : Mr. Scott Sheplak, P.E.

RE: Southern Gardens Citrus Processing Corp. (SGCPC)
Permit No. 0510015-007-AC; PSD-FL-299
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Dear Mr. Sheplak:

Southern Gardens Citrus Processing Corporation (SGCPC) recently applied for several revisions to Final Permit No. 0510015-007-AC/PSD-FL-299 issued on December 4, 2000. These changes were requested in letters to the Department dated August 7, 2001 and September 20, 2001. In the August 7 letter, it was requested that the limitation on the peel dryer process input rate be changed from 47 tons per hour (TPH) of pressed peel to 18.5 TPH of bone-dry peel (BDP). The reason for this request was that all of the emissions in the original PSD application for the three juice extractors were based on BDP input to the dryer.

Based on my discussions with Mr. Bruce Mitchell of your staff, the Department is reluctant to change the basis of the peel dryer limitation, since no other citrus processing plants in Florida currently have peel dryer input limits in terms of BDP. The purpose of this letter is to provide additional information in regards to this request and to offer alternative limits based on wet peel input.

A review was conducted of all current Title V permits for citrus plants in Florida. The results of this review are presented in the attached table, for your reference. About 25 citrus plants are currently permitted. All peel dryer capacity limits are based on wet (pressed) peel input. Of these, 10 plants do not have any hourly capacity limitation, but instead have a monthly or 12-month rolling average limitation on wet peel input. Some of these 10 plants have a maximum hourly input rate specified under the particulate matter (PM) emission standards, for testing and hourly/annual emission limit purposes. For several of these plants, the 12-month rolling average limitation was taken to avoid PSD review.

In the original extractors PSD application for SGCPC, a maximum process rate of 47 TPH pressed peel was shown on the application form and was stated in the report with the PSD application. In the application form, this rate was qualified as based on 74-percent moisture. In the PSD report, it was qualified as "approximately 47 TPH at 74 percent moisture". Therefore, it was recognized that input rates could vary based on moisture content. Unfortunately, SGCPC did not object to this limit in the final permit that was issued. Nevertheless, as discussed previously, all emissions in the application were based on 18.5 TPH BDP input or the maximum 84 MMBtu/hr heat input to the dryer, and not 47 TPH pressed peel input.

It is also noted that molasses from the process may or may not be added onto the peel press cake prior to entering the peel dryer. This was indicated on the flow diagram of the facility and the feed mill in the original PSD permit application. Historically, until last season, SGCPC normally added recovered molasses back onto the peel. Last season, however, it became more economical to sell the molasses as a separate byproduct. Whether molasses continues to be sold separately or is combined back with the pressed peel will depend on economics.

The molasses stream is large in volume and can add a significant amount of additional solids into the peel press cake. Molasses is about 50-percent moisture; therefore, adding molasses to the press cake lowers the overall moisture content of the press cake (the press cake is typically around 70-percent moisture). As described below, lowering press cake moisture allows greater weight of press cake through the peel dryer.

If the Department deems it appropriate to retain the dryer capacity limitation based on pressed peel input, then SGCPC requests that the limitation be changed to more correctly reflect the potential total input to the dryer, i.e., pressed peel plus molasses. The current hourly limitation on the dryer only relates to "pressed peel".

The attached Table 2 presents SGCPC peel dryer input rates in terms of dryer evaporation rate, pressed peel input rate (can include molasses), peel moisture content, and the corresponding bone dry peel input rate. SGCPC's dryer is designed for 60,000 lb/hr water evaporation rate. Based on this water evaporation rate, the potential input rate to the dryer becomes a function of moisture content of the pressed peel/molasses. The pressed peel/molasses input rate changes rapidly with moisture content, due to the high moisture contents associated with citrus peel. Also note that up to 54.3 TPH of pressed peel/molasses could be processed if moisture content is low enough (i.e., 62 percent). This low moisture content is possible if the pressed peel moisture content is about 65 percent, and molasses is being added to the peel.

It is important to note that, as peel moisture content is lowered, additional pressed peel can be accommodated by the dryer. All citrus processors today are striving to make process improvements to lower pressed peel moisture content. The feed mill operations are currently losing money. Therefore the goal is to process more peel through the dryer at lower cost. Lowering the peel moisture content saves energy, allows higher peel throughput thus lowering the operating hours of the dryer, and lowers overall operating costs.

In addition, the environment benefits in several ways. First, lower peel moisture content translates to less citrus oil in the peel. This leads directly to lower VOC and CO emissions out the dryer/waste heat evaporator stack. Secondly, less energy is consumed by the dryer, improving energy efficiency and lowering combustion-related emissions.

Based on the foregoing discussion, SGCPC requests the following changes in regards to capacity limitations on the peel dryer:

1. Remove the hourly throughput limitation, and replace it with the previous short-term limitation on the peel dryer of 84 MMBtu/hr (daily average).

2. Set a new annual capacity limitation on the dryer based on the 20 million box capacity limitation for the plant. The limitation is based on the historic maximum amount of pellets produced in the feed mill at SGCPC, plus a margin to account for variability.

This historic maximum is approximately 10 lb of dried pellets @ 15-percent moisture per box of fruit processed (this figure includes molasses added back into the peel). Assuming the average moisture of the pressed peel is 74 percent (worst case on annual basis), and using 10.5 lb pellets/box of fruit, the specific limitation is 343,000 TPY of pressed peel/molasses, derived as follows:

10.5 lb pellets/box @ 15% moisture x (1-0.85) = 8.93 lb/box bone dry

8.93 lb/box x 1/(1-0.74) = 34.3 lb pressed peel/box @ 74% moisture

20 million boxes/yr x 34.3 lb/box x ton/2000 lb = 343,000 TPY pressed peel

This request in no way affects the actual capacity of the peel dryer. No change in the maximum heat input to the dryer of 84 MMBtu/hr is being requested. It will not affect the annual rate through the dryer, since this is limited by the 20 million boxes of fruit cap on the facility. This request does not increase hourly or annual potential emissions from the facility. Approving this change will allow SGCPC to become more efficient in its operations, and potentially reduce air emissions.

In order that the potential hourly and annual PM emissions from the peel dryer are not increased, SGCPC is also proposing to place a cap on PM emissions at 32.05 lb/hr and 96.15 TPY. This is the current limitation based on the process rate of 47 TPH and using the process weight table. At process rates lower than 47 TPH, the process weight table would still govern. However, at process rates above 47 TPH, PM emissions would be limited to 32.05 lb/hr.

Please find attached a responsible official and P.E. signature page, as well as updated pages from the extractors PSD application. The flow diagrams have been revised to show that molasses can also be sent off-site to customers.

Thank you for consideration of this requested revision to the PSD permit. Please call or e-mail me if you have any questions concerning this information.

Sincerely,
Golder Associates Inc.

David A. Buff

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

DB/jkw

Attachments

cc: Derek Pridgen
Olga Rodriguez
Lisa Gefen

Table 2. Calculation of Maximum Peel Dryer Process Rates, Southern Gardens

| Parameter | Process Rate | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Moisture removal in dryer (lb/hr)* | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 |
| Pressed peel input rate (TPH) | **54.26** | **52.06** | **50.00** | **48.13** | **46.37** | **44.75** | **43.23** | **41.79** |
| Pressed peel moisture (%) | 62 | 64 | 66 | 68 | 70 | 72 | 74 | 76 |
| Total moisture input (lb/hr) | 67,286 | 66,631 | 66,000 | 65,450 | 64,913 | 64,440 | 63,982 | 63,523 |
| Pressed peel input rate (TPH bone dry peel) | 20.62 | 18.74 | 17.00 | 15.40 | 13.91 | 12.53 | 11.24 | 10.03 |
| Dried peel mositure (%)** | 15.0% | 15.0% | 15.0% | 15.0% | 15.0% | 15.1% | 15.0% | 14.9% |
| Moisture remaining in dry peel (lb/hr) | 7,286 | 6,631 | 6,000 | 5,450 | 4,913 | 4,440 | 3,982 | 3,523 |
| Total dried peel production rate (TPH) | 24.26 | 22.06 | 20.00 | 18.13 | 16.37 | 14.75 | 13.23 | 11.79 |

* Design water removal rate for peel dryer.

** Dried peel existing the dryer normally in 13%-15% range. Using highest moisture results in greatest pressed peel input rate.

Table 1. Summary of Permitted Peel Dryer Capacities, Florida Citrus Industry (October 2001)

| Facility | Formerly Named | City | County | Title V Permit No. | Number of Peel Dryers | Capacity Limitation |
|---|---|---|---|---|---|---|
| A. Duda & Sons/Citrus Belle | | Labelle | Hendry | 0150004-001-AV | 1 | 12.3 TPH BDP/ 35 TPH wet peel/ 7.5 million boxes* |
| Cargill Citro Pure | Cargill Citro-America | Frostproof | Polk | 1050019-003-AV | 1 | 51.0 TPH pressed peel (daily avg) |
| Cargill Citro Pure | Indian River Foods | Ft. Pierce | St. Lucie | 1110018-003-AV | 1 | 140,000 TPY * |
| Cargill Citro Pure | SunPure | Avon Park | Highlands | 0550035-005-AV | 1 | N/A:"Normal operating capacity, approximately 14 TPH." |
| Citrus Service | | Brooksville | Hernando | 0530004-003-AV | 1 | 10 TPH wet peel (daily avg) |
| Citrus World | | Lake Wales | Polk | 1050002-003-AV | 3 | 40/ 80/ 88.6 TPH pressed peel (daily avg) |
| Citrosuco North America | Alcoma Packing | Lake Wales | Polk | 1050001-001-AV | 2 | 50 TPH each dryer (daily avg);<br>285,700 TPY* pressed peel for both dryers |
| Cutrale Citrus Juices | | Auburndale | Polk | 1050023-002-AV | 2 | 55/ 55 TPH (daily avg) |
| Cutrale Citrus Juices | | Lessburg | Lake | 0690002-003-AV | 1 | 457,272 TPY* |
| Florida Global Citrus | SFE Citrus Porcessors | Auburndale | Polk | 1050037-001-AV | 1 | 62 TPH pressed peel |
| Florida Select Citrus | | Groveland | Lake | 0690001-001-AV | 1 | 95,795 TPY wet peel*+; 19.55 TPH under PM standards |
| Goldem Gem Growers | | Umatilla | Lake | 069005-001-AV | 1 | 237,888 TPY wet peel*; 47.2 TPH under PM standards |
| Holly Hill | | Davenport | Polk | 1050061-001-AV | 1 | 28.4 TPH wet peel (daily avg) |
| Louis Dreyfus Citrus | Caulkins Indiantown | Indiantown | Martin | 085000-003-AV | 2 | 27/ 39 TPH; 4,500 hr/yr combined operation |
| Louis Dreyfus Citrus | Winter Garden Citrus | Winter Garden | Orange | 0950053-002-AV | 2 | 185,490 TPY*+ (cobined operation) |
| Met Life Insurance Company | Fla. Juice Partner/ US Beverage | Lakeland | Polk | 1050015-005-AV | 1 | 36.0 TPH wet peel (daily avg) |
| Ocean Spray Cranberry | | Vero Beach | Indian River | 0610021-007-AV | #1<br>#2<br>#1+#2 | 95.256 TPY wet peel*; 27.0 TPH under PM standards<br>127.008 TPY wet peel*; 36.0 TPH under PM standards<br>127,008 TPY wet peel* (combined input) |
| Pasco Processing | Orange- Co. | Bartow | Polk | 1050045-004-AV | 2 | 45.0/ 22.5 TPH pressed peel; cannot operate simultaneously |
| Peace River Citrus | | Arcadia | Desoto | 0270003-005-AV | 1 | 32.5 TPH (monthly avg) |
| Silver Springs Citrus | | Howey-in-the-Hi | Lake | 0690014-002-AV | 1 | 122.285 TPY wet peel*; 21.23 TPH udner PM standards |
| Southern Gardens Citrus | | Clewiston | Hendry | 0510015-009-AV | 1 | 47.0 TPH wet peel (daily avg) |
| SunPac Foods | | Winter Haven | Polk | 1050106-001-AV | 1 | 25 TPH pressed peel (daily avg) |
| Tropicana | | Ft. Pierce | St Lucie | 1110004-002-AV | 2 | 50 TPH pressed peel each dryer (daily avg) |
| Tropicana | | Bradenton | Manatee | 0810007-003-AV | 3 | 50 TPH each- pressed peel |

Footnotes:
* per 12 consecutive months
+ PSD avoidance limit

# 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: | |
| 2. Permit Number: | |
| 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)

[ X ] 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, 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.*

T. Chapman — 10/6/01

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 [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.*

David A. Buff
Signature

11/06/01
Date

(seal)

* Attach any exception to certification statement.

## Scope of Application

| Emissions Unit ID | Description of Emissions Unit | Permit Type | Processing Fee |
|---|---|---|---|
| 003 | Citrus Feed Mill(Peel Dryer/Waste Heat Evaporator) | AC1A | |
| 004, 005, 009 | Citrus Pellet Coolers | AC1A | |
| 006 | 7 VOC Storage Tanks | AC1A | |
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## Application Processing Fee

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

## Construction/Modification Information

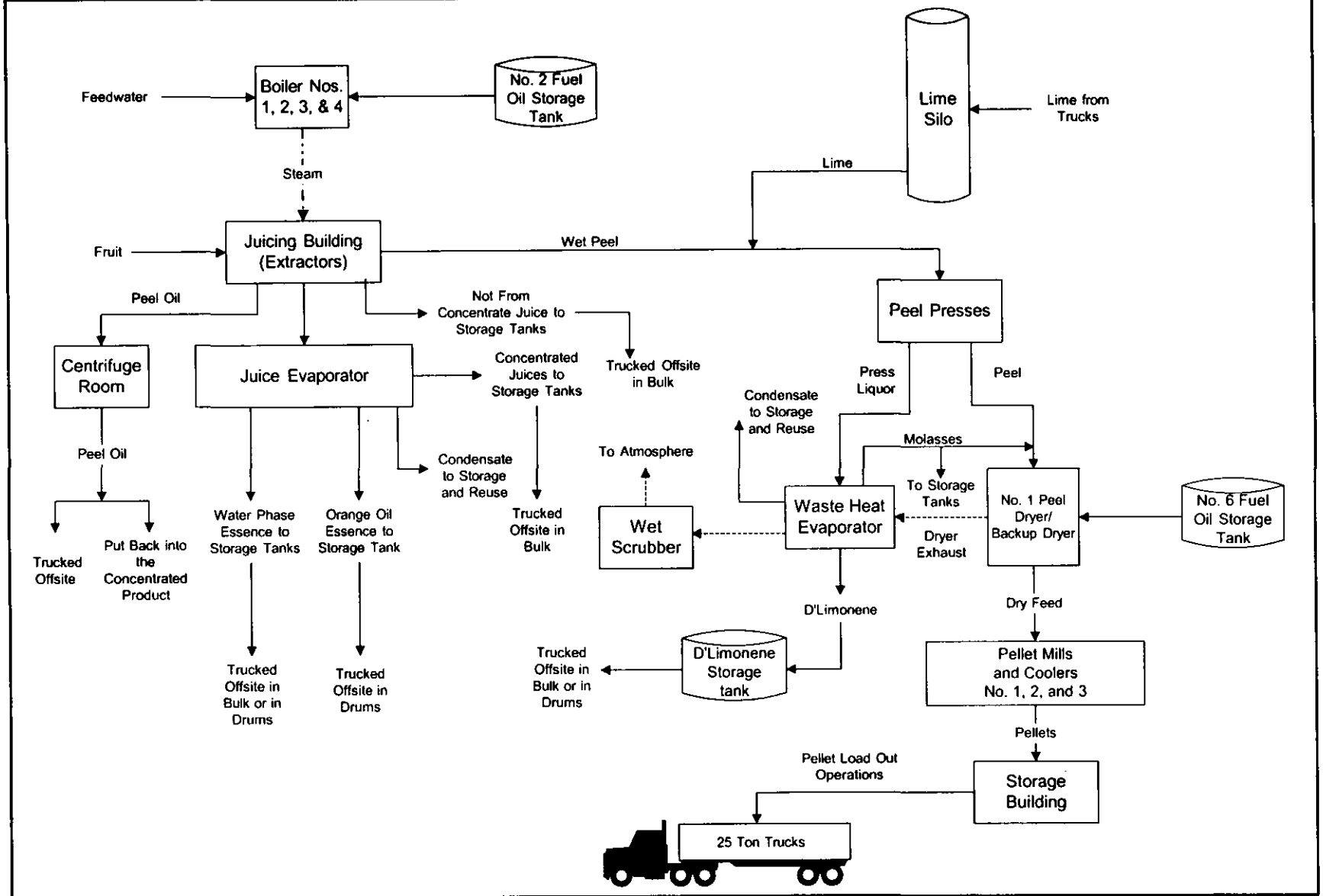
| |
|---|
| 1. Description of Proposed Project or Alterations: |
| 2. Projected or Actual Date of Commencement of Construction: |
| 3. Projected Date of Completion of Construction: |

## Application Comment

**This application is for a revision to the PSD permit for the addition of three (3) extractors (Permit No. 0510015-007-AC/PSD-FL-299).**

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-EU1-J1.VSD

*Latest Revision Date:* 11/5/01

Process Flow Legend:
Solid / Liquid
Gas
Steam

Golder Associates

## 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: | **54.3 TPH** | |
| 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):

1. **Max Process Rate represents pressed citrus peel and molasses.**
2. **Maximum production rate represents bone-dry peel.**

**See Attachment SG-EU1-B6.**

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

**Potential/Fugitive Emissions**

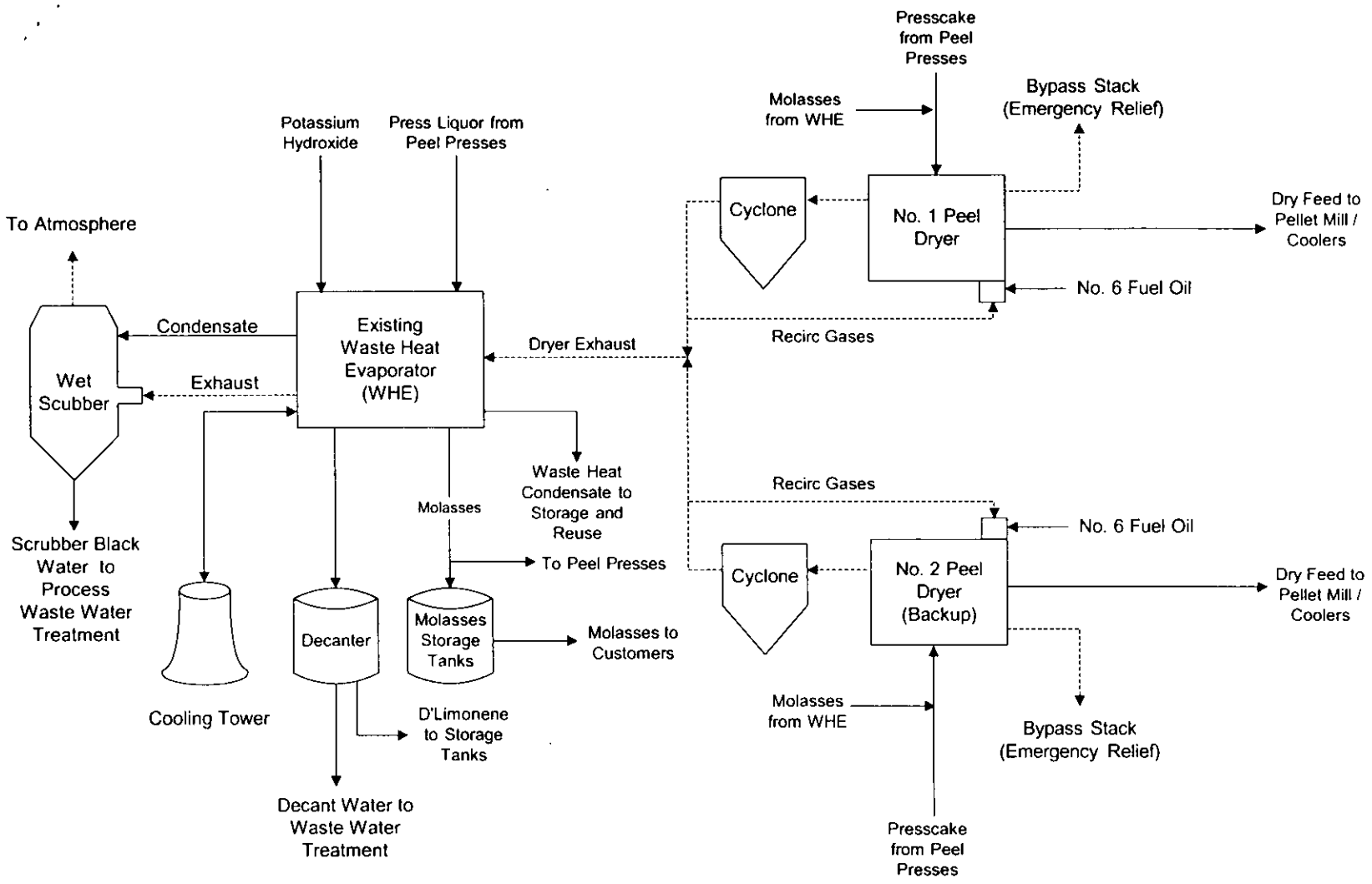
| | |
|---|---|
| 1. Pollutant Emitted: **PM** | 2. Total Percent Efficiency of Control: |
| 3. Potential Emissions: **32.05** lb/hour **96.15** tons/year | 4. Synthetically Limited? [ X ] |
| 5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year | |
| 6. Emission Factor: 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. Emissions at process rates higher than 47 TPH are capped at 32.05 lb/hr.** | |

**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: **32.05 lb/hr** | 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. Emissions capped at 32.05 lb/hr.** | |

ATTACHMENT SG-EU1-J1

PROCESS FLOW DIAGRAM




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

*Process Area:* Backup No. 2 Peel Dryer Evaporator

*Filename:* SG-EU1-J1.VSD

*Latest Revision Date:* 11/5/01

Process Flow Legend:
Solid / Liquid
Gas
Steam

Golder Associates

**Golder Associates Inc.**

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



Golder Associates

September 24, 2001

0137582

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

Attention : Mr. Scott Sheplak, P.E.

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

Dear Mr. Sheplak:

Southern Gardens Citrus Processing Corporation (SGCPC) recently applied for several revisions to Final Permit No. 0510015-007-AC/PSD-FL-299 issued to SGCPC on December 4, 2000. These changes were requested in a letter to the Department dated August 7, 2001. The purpose of this letter is to request an additional change to the permit. The requested change is discussed below.

**SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS**
**Page 9 of 12, Specific Condition 27. Fruit Throughput Limited**
This condition limits the total citrus throughput of the facility to 20 million boxes of fruit per year. However, this condition does not recognize that the citrus peel resulting from the fruit brought into the facility may not be processed through the peel dryer. Although the amount of peel not processed through the facility is typically small, there are occasions when peel is shipped offsite. For example, during the past processing season, the peel dryer broke down for several days, during which wet peel was shipped offsite.

The purpose of the limitation on citrus fruit throughput is to limit the potential emissions of the facility. Emissions of volatile organic compounds (VOCs), carbon monoxide (CO) and particulate matter (PM) from the facility originate primarily from the peel dryer and pellet coolers (very minor emission of these pollutants result from boiler operation). As a result, processing additional fruit through the juice extractors but not through the peel dryer/pellet mills will not significantly increase actual emissions, and would require no increase in potential emissions.

Specific Condition 28 of the permit recognizes that wet peel received from an offsite source shall be included in the total throughput limitation of Specific Condition 27. Likewise, wet peel shipped out from the facility should be excluded from the total throughput limitation.

It is therefore proposed to amend Specific Condition 27 to add the following language:

> Wet peel not processed through the citrus peel dryer shall be excluded from the determination of total citrus throughput for purposes of compliance with this condition. For purposes of this permit, a box of citrus fruit shall be defined to contain 45 pounds of wet peel. The permittee shall maintain records of the weight of wet peel shipped offsite, as well as the equivalent number of boxes of fruit. This shall be reported to the Department on an annual basis.

Thank you for consideration of this requested revision to the PSD permit. Please call or e-mail me if you have any questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

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

DB/jkw

Attachments

cc: Derek Pridgen
Olga Rodriguez
Lisa Gefen

P:\Projects\2001\0137582 Southern Gardens\4\4.1\L092401.doc

**Golder Associates Inc.**

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



Golder Associates

September 20, 2001 0137582

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

Attention : Mr. Scott Sheplak, P.E., Administrator, Title V Section

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

Dear Mr. Sheplak:

SGCPC has received the Department's letter dated September 4, 2001, regarding the above referenced air construction permit. The letter requests that the first six pages of the Department's permit application be submitted to support the August 7, 2001, request for permit amendment. The requested application pages are attached, complete with professional engineer and responsible official signatures.

Please continue processing the request as quickly as possible. Please call or e-mail me if you have any questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

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

DB/jkw

Attachments

cc: Derek Pridgen
Olga Rodriguez
Lisa Gefen

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# 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: | |
| 2. Permit Number: | |
| 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)

[ X ] 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, 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.*

Signature

9-25-01
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 [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.*

David A. Buff — Signature

9/20/01 — Date

(seal)

* Attach any exception to certification statement.

**Scope of Application**

| Emissions Unit ID | Description of Emissions Unit | Permit Type | Processing Fee |
|---|---|---|---|
| 003 | Citrus Feed Mill(Peel Dryer/Waste Heat Evaporator) | AC1A | |
| 004, 005, 009 | Citrus Pellet Coolers | AC1A | |
| 006 | 7 VOC Storage Tanks | AC1A | |
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**Application Processing Fee**

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

**Construction/Modification Information**

| |
|---|
| 1. Description of Proposed Project or Alterations: |
| 2. Projected or Actual Date of Commencement of Construction: |
| 3. Projected Date of Completion of Construction: |

**Application Comment**

| |
|---|
| **This application is for a revision to the PSD permit for the addition of three (3) extractors (Permit No. 0510015-007-AC/PSD-FL-299).** |

**Golder Associates Inc.**

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

August 7, 2001



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)
PERMIT NO. 0510015-007-AC; PSD-FL-299
ADDITION OF THREE JUICE EXTRACTORS
0510015-010-AC

Dear Mr. Kahn:

As recently discussed with you, the purpose of this letter is to request several revisions to Final Permit No. 0510015-007-AC/PSD-FL-299 issued to SGCPC on December 4, 2000. Some of the changes are based on experience this past season while operating under the PSD permit. The requested changes are as follows.

**SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS**
**Page 9 of 12**

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

SGCPC proposes to modify this requirement by allowing the option of not including the oil remaining in the dry pellets. SGCPC has found this measurement to be burdensome at present. By eliminating this oil recovery, SGCPC would be recording and reporting lower oil recovery than is actually occurring. SGCPC acknowledges that this change will in no way alter the requirement to demonstrate a minimum recovery of 50 percent of the oil from citrus fruits processed, as stated in Condition 28. However, SGCPC would retain the option to include the oil in the pellets in the future, if so desired.

SGCPC also requests that oil recovered in "oil phase essence" be allowed to be included in the total oil recovery calculations. This recovered oil is measured on a daily basis by the plant, similar to the cold press oil and the d-limonene.

Proposed revised wording for Condition 28 is provided below.

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 oil recovery 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, **oil phase essence 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. **In either of these methods, the owner or operator may choose to exclude from the oil recovery calculation the oil remaining in the dried pellets.**

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.]

**SECTION III – Subsection A – Pellet Coolers**
**Page 10 of 12**
Pellet Cooler No. 3 is normally operated at the facility, with Coolers No. 1 and 2 serving only as standby units. Historically, Cooler Nos. 1 and 2 have been operated very little.

Condition 4 requires that each of the emissions units (Cooler Nos. 1, 2 and 3) be tested for particulate matter initially and prior to renewal of the operating permit. Due to the expense and disruption to operations that would result from having to test Cooler Nos. 1 and 2, it is requested that particulate testing be required for Cooler Nos. 1 and 2 only if operating hours in a year exceed 400 hours. If the 400-hour threshold was exceeded, SGCPC would arrange for testing within operational 60 days.

It is noted that measured PM emissions from Cooler No. 3 have been less than 1.0 lb/hr of PM. All the coolers at SGCPC have passive cyclone collectors as control devices. Therefore, it is anticipated that PM emissions from the coolers will always be well below the emission limit of 5.0 lb/hr.

**SECTION III – Subsection B –Citrus feed mill peel dryer/waste heat evaporator**
**Page 11 of 12**
SGCPC requests that the maximum pressed peel input rate to the dryer being expressed in terms of tons of bone dry peel (BDP) instead of wet peel. In the application for the extractors addition, all air emissions from the peel dryer were based on tons of BDP processed through the dryer (refer to September 2000 application; Attachment SG-EU1-G8 and Table 2-4). This is the same unit of measure used by the Florida Citrus Processors Association in developing VOC emission factors for the citrus industry. The expression of the input rate on a dry basis eliminates one of the parameters (i.e., moisture content of pressed peel) that must be measured on a daily basis in order to determine pressed peel input rate. Dry peel input can be measured by measuring the dried pellet production and

the moisture content of the dried pellets. Thus, measuring peel input on a dry basis is more accurate than a wet peel basis.

Based on this information and the fact that the peel dryer air emission rates in the extractors application were based on bone dry peel input rates, it is requested that the peel dryer process rate limitation be revised to 18.5 tons per hour of BDP.

Thank you for consideration of these requested revisions to the final permit. Please call or e-mail me if you have any questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

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

DB/jkw

Attachments

cc: Derek Pridgen
Olga Rodriguez
Lisa Gefen

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