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BUREAU OF AIR REGULATION

APPLICATION FOR MINOR SOURCE AIR CONSTRUCTION PERMIT FOR TROPICANA PRODUCTS, INC. BRADENTON CITRUS PROCESSING FACILITY ANAEROBIC REACTOR WITH BIOGAS FLARE

Prepared For:

Tropicana Products, Inc.
Bradenton Citrus Processing Plant
1001 13th Avenue, East
Bradenton, Florida 34208

Prepared By:

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

January 2003
0237606

DISTRIBUTION:
4 Copies - FDEP
2 Copies - Tropicana Products, Inc.
1 Copy - Golder Associates Inc.

PART I

APPLICATION FOR AIR PERMIT
LONG FORM

Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

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

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: **Tropicana Products, Inc.**	
2. Site Name: **Bradenton Citrus Processing Facility**	
3. Facility Identification Number: **0810007** [ ] Unknown	
4. Facility Location: Street Address or Other Locator: **1001 13th Avenue** City: **Bradenton** County: **Manatee** Zip Code: **34208**	
5. Relocatable Facility? [ ] Yes [**X**] No	6. Existing Permitted Facility? [**X**] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: **Douglas E. Foster, Director, Corporate Environmental & Safety**
2. Application Contact Mailing Address: Organization/Firm: **Tropicana Products, Inc.** Street Address: **P.O. Box 338** City: **Bradenton** State: **FL** Zip Code: **34206**
3. Application Contact Telephone Numbers: Telephone: (**941**) **742 - 2748** Fax: (**941**) **742 - 3768**

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:
   Michael Haycock, Vice President, Manufacturing
2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: **Tropicana Products, Inc.**
   Street Address: **P.O. Box 338**
   City: **Bradenton** State: **FL** Zip Code: **34206**
3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: **(941) 742-3349** Fax: **(941) 749-2049**
4. Owner/Authorized Representative or Responsible Official Statement:

   I, the undersigned, am the owner or authorized representative(check here [X], 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.*

   Michael Haycock — Signature

   02/07/03 — Date

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: **Kennard F. Kosky**
   Registration Number: **14996**
2. Professional Engineer Mailing Address:
   Organization/Firm: **Golder Associates Inc.***
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**
3. Professional Engineer Telephone Numbers:
   Telephone: **(352) 336 - 5600** Fax: **(352) 336 - 6603**

*** Board of Professional Engineers Certificate of Authorization #00001670**

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

2/6/03
Date

(seal)

* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
022	Anaerobic Reactor with Biogas Flare	AC1D	NA

Application Processing Fee

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

Construction/Modification Information

1. Description of Proposed Project or Alterations:

   This permit application is being submitted to remove the fuel use restriction for the biogas flare (see Part II).

2. Projected or Actual Date of Commencement of Construction: **NA**

3. Projected Date of Completion of Construction: **NA**

Application Comment

Emission Units 012 and 014, Glass Plants Nos. 2 and 3, were authorized to burn biogas. These emission units will no longer be operated resulting in the need to increase the amount of biogas burned in the flare (see Part II).

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: **17** East (km): **561.4** North (km): **3056.5**			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): **27 / 37 / 52** Longitude (DD/MM/SS): **80 / 22 / 33**			
3. Governmental Facility Code: **0**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **20**	6. Facility SIC(s): **2037, 2653, 3221**
7. Facility Comment (limit to 500 characters): **See Attachment Part II.**			

Facility Contact

1. Name and Title of Facility Contact: **Mr. George Cassady, Manager, Environmental Operations**			
2. Facility Contact Mailing Address: Organization/Firm: **Tropicana Products, Inc.** Street Address: **P.O. Box 338** City: **Bradenton** State: **FL** Zip Code: **34206**			
3. Facility Contact Telephone Numbers: Telephone: **(941) 742 - 2677** Fax: **(941) 742 - 2698**			

Facility Regulatory Classifications

Check all that apply:

1. [ ] Small Business Stationary Source?	[ ] Unknown
2. [X] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. [ ] Synthetic Minor Source of Pollutants Other than HAPs?	
4. [X] Major Source of Hazardous Air Pollutants (HAPs)?	
5. [ ] Synthetic Minor Source of HAPs?	
6. [X] One or More Emissions Units Subject to NSPS?	
7. [ ] One or More Emission Units Subject to NESHAP?	
8. [ ] Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters): **NSPS Subpart GG does not apply to the gas turbine since it is not an electric utility stationary gas turbine. Subpart Db applies to the HRSG duct burners.**	

List of Applicable Regulations

All federal regulatory citations reflect the rule language as of October 2002. All state regulatory citations reflect rule language as of October 2002. Only those rules and regulations specifically identified herein apply to this facility. See Title V Core List (Attachment TB-FI-A), effective 3/1/02.

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap lb/hour	tons/year	4. Basis for Emissions Cap	5. Pollutant Comment

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Area Map Showing Facility Location: [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
2. Facility Plot Plan: [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
5. Fugitive Emissions Identification: [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
6. Supplemental Information for Construction Permit Application: [X] Attached, Document ID Part II [ ] Not Applicable
7. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

8. List of Proposed Insignificant Activities:
   [ ] Attached, Document ID:_____ [X] Not Applicable

9. List of Equipment/Activities Regulated under Title VI:
   [ ] Attached, Document ID:_____
   [ ] Equipment/Activities On site but Not Required to be Individually Listed
   [X] Not Applicable

10. Alternative Methods of Operation:
    [ ] Attached, Document ID:_____ [X] Not Applicable

11. Alternative Modes of Operation (Emissions Trading):
    [ ] Attached, Document ID:_____ [X] Not Applicable

12. Identification of Additional Applicable Requirements:
    [ ] Attached, Document ID:_____ [X] Not Applicable

13. Risk Management Plan Verification:
    [ ] 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:_____)
    [ ] Plan to be submitted to CEPPO (Date required:_____)
    [X] Not Applicable

14. Compliance Report and Plan:
    [ ] Attached, Document ID:_____ [X] Not Applicable

15. Compliance Certification (Hard-copy Required):
    [ ] Attached, Document ID:_____ [X] Not Applicable

ATTACHMENT TB-FI-A

CORE LIST

Title V Core List Effective: 03/01/02

[**Note:** The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for 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.]

Federal: ***(description)***

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 06-01-01

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 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 06-21-01

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(5), F.A.C.: Notification of Startup.
62-210.300(6), F.A.C.: Emissions Unit Reclassification.
62-210.300(7), F.A.C.: Transfer of Air Permits.

62-210.350, F.A.C.: Public Notice and Comment.
62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action.
62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review.
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.
62-210.400, F.A.C.: Emission Estimates.
62-210.650, F.A.C.: Circumvention.
62-210.700, F.A.C.: Excess Emissions

62-210.900, F.A.C.: Forms and Instructions.
62-210.900(1), F.A.C.: Application for Air Permit - Title V Source, Form and Instructions.
62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.
62-210.900(7), F.A.C.: Application for Transfer of Air Permit - Title V and Non-Title V Source.

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES- PRECONSTRUCTION REVIEW, effective 08-17-00

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 04-16-01

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.
62-213.415, F.A.C.: Trading of Emissions Within a Source.
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.
62-213.450, F.A.C.: Permit Review by EPA and Affected States
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.
62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form.
62-213.900(7), F.A.C.: Statement of Compliance Form

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-02-99

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.
62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter

CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 03-02-99

62-297.310, F.A.C.: General Test Requirements.
62-297.330, F.A.C.: Applicable Test Procedures.
62-297.340, F.A.C.: Frequency of Compliance Tests.
62-297.345, F.A.C.: Stack Sampling Facilities Provided by the Owner of an Emissions Unit.
62-297.350, F.A.C.: Determination of Process Variables.
62-297.570, F.A.C.: Test Report.
62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

Miscellaneous:

CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests
CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07-01-98
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 02-09-99
CHAPTER 62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling, effective 09-10-96

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):

Anaerobic Reactor with Biogas Flare

4. Emissions Unit Identification Number: [ ] No ID [ ] ID Unknown
ID: **022**

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A		**20**	[ ]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emission unit consists of a Bacardi anaerobic reactor and a John Zink flare. The anaerobic reactor is part of the wastewater treatment system (see Part II).

Emissions Unit Control Equipment

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

   Flare

2. Control Device or Method Code(s): **023**

Emissions Unit Details

1. Package Unit:
   Manufacturer: **John Zink Enclosed Flare System** 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:			**21.35**	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr			tons/day
3. Maximum Process or Throughput Rate:				
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):				
See Part II.				

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Attachment TB-EU1-C for operational requirements.

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? **NA**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Exhausts through a single stack.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **35** feet	7. Exit Diameter: **1.7** feet
8. Exit Temperature: **300** °F	9. Actual Volumetric Flow Rate: **2,300** 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 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Food and Agriculture – Fuel Fired Equipment – Natural Gas**		
2. Source Classification Code (SCC): **3-02-900-03**	3. SCC Units: **Million Cubic Feet Burned**	
4. Maximum Hourly Rate: **0.022**	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **950**
10. Segment Comment (limit to 200 characters): **Natural gas used in flare pilot burner system for startup and stabilization.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Food and Agriculture – Fuel Fired Equipment**		
2. Source Classification Code (SCC): **3-02-910**	3. SCC Units: **Million Btu**	
4. Maximum Hourly Rate: **21.35**	5. Maximum Annual Rate: **187,026**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **Variable**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **Variable**
10. Segment Comment (limit to 200 characters): **Heat and sulfur contents are variable depending upon anaerobic process conditions.**		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO_2			EL

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

Potential/Fugitive Emissions

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour **30.22** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **AC41-204587 and 0810007-003-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **TPY based on the maximum allowable in air construction and Title V permits.**	

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: **30.22 ton/yr**	4. Equivalent Allowable Emissions: lb/hour **30.22** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Sampling**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Air Construction Permit AC 41-204587 and Title V permit (0810007-0030AV) (see Part II).**	

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: **20 %** Exceptional Conditions: **27 %** Maximum Period of Excess Opacity Allowed: **6** 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. Excess opacity allowed by Rule 62-210.700 for startup, shutdown, and malfunctions and limited to 2 hours in 24 hours.**	

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

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [X] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [X] 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:_____

[X] Not Applicable

ATTACHMENT TB-EU1-C

LIST OF APPLICABLE REGULATIONS

ATTACHMENT TB-EU1-C

LIST OF APPLICABLE REGULATIONS

EMISSION UNIT ID: Anerobic Process Flare

FDEP Rules:

Stationary Sources-General:

62-210.700(1)	- Excess Emissions; Malfunction;2hrs/24hrs
62-210.700(4)	- Excess Emissions; poor maintenance exclusion
62-210.700(6)	- Excess Emissions; reporting

Stationary Sources-Emission Standards:

62-296.320(4)(b)	- General VE (by air construction permit)

Stationary Sources-Emission Monitoring:

62-297.310(2)(b)	- Operating Rate
62-297.310(4)(a)2.	- Applicable Test Procedures; VE
62-297.310(5)	- Determination of Process Variables
62-297.310(7)(a)1.	- Renewal
62-297.310(7)(a)3.	- Permit Renewal Test Required
62-297.310(7)(a)4.a.	- Annual Test (visible emissions)
62-297.310(7)(a)9.	- FDEP Notification - 15 days
62-297.310(8)	- Test Reports

PART II

SUPPORTING INFORMATION

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1.0 INTRODUCTION

Tropicana Products, Inc. (Tropicana) is submitting this minor source air construction application for the existing Bradenton Citrus Processing Plant to revise an existing Title V Permit (080007-003-AV) for the anaerobic reactor and biogas flare to eliminate the total heat input restriction of 18,659 MMBtu per 12 consecutive month period. Since this provision was included as part of a minor source construction permit, this minor source air construction permit is being submitted to change the condition underlying the condition in the Title V permit (Condition G.1). There is no request to change the emission restriction on sulfur dioxide emissions from the anaerobic reactor, but to clarify the emission units that will use biogas.

Presented below are descriptions of the existing facility and a discussion of request.

1.1 EXISTING FACILITY

The Tropicana facility is located at 1001 13th Avenue East, Bradenton, Florida. The existing industrial complex includes glass manufacturing and citrus processing that includes juice extracting, processing, packaging, warehousing, and distributing. Fruit is graded and carried to an extractor room where the juice is removed and pumped to either carton filling, glass filling, plastic filling, block freezing, aseptic storage, or to evaporators for concentrate production.

The plant contains three citrus feed mills, four citrus pellet mills (including two pellet coolers and associated pellet, bulk cooling reels, and Ross coolers), one glass plant (one glass plant was closed in 2000), cogeneration facility [including combustion turbine, HRSG, duct burner, auxiliary boiler, a sanitary process steam boiler (used to produce 5-fold citrus oil) and a standby process steam boiler], and a wastewater treatment system (including a package steam boiler and an anaerobic reactor with a biogas flare).

The facility operates under a Title V permit issued by the Florida Department of Environmental Protection (FDEP) on February 27, 2000 (Final Permit No. 0810007-003-AV).

1.2 ANAEROBIC REACTOR WITH BIOGAS FLARE

The Tropicana Bradenton facility has an anaerobic reactor and biogas flare identified as Emission Unit 022 in the Title V Permit. The anaerobic reactor is part of the wastewater treatment system and produces a biogas. The biogas is currently authorized to be burned in the No. 2 and No. 3 Glass Plants, a biogas flare and/or small steam boiler. The glass plants are being phased out due to

consumer demand (consumers prefer plastic or cardboard containers). The No. 2 Glass Plant stopped operating in 2000, while No. 3 Glass Plant will stop operating this winter. With the closing of the glass plants, the biogas can only be burned in the biogas flare and small boiler. The current Title V Permit for the Tropicana facility has a restriction in the amount of total heat input for the biogas flare of 18,659 MMBtu/12 consecutive months. At the maximum heat input of 21.35 MMBtu/hr, operation would be limited to 874 hours. The restriction was an artifact of trying not to double count emissions in the three sources during the original permitting, since all emission units would burn biogas at one time or another. There is an overall emission limit on sulfur dioxide (SO_2) emissions as a cap on the glass plants, biogas flare and boiler of 6.9 lb/hr and 30.22 tons/year. This emission limit was based on a maximum hourly heat input of 21.35 MMBtu/hr for the anaerobic process. However, there is no individual sulfur dioxide emission limit imposed on the glass plants, biogas flare or boiler, since all units could have the capability of burning biogas. Given that the glass plants will no longer be operating, the restriction on total heat input is requested to be changed from the 18,659 MMBtu per 12 consecutive months in Title V and Air Construction Permit to 187,026 MMBtu per 12 consecutive months. The latter represents potential heat input at 8,760 hours at 21.35 MMBtu/hr.

The maximum sulfur dioxide emissions were developed from the hourly biogas production and sulfur content in the biogas. The hourly biogas generation of 24,150 cubic feet (cf)/hr which is equivalent to 21.35 MMBtu at a heat content of biogas of 884.2 Btu/cf. The sulfur dioxide emissions were based on 1 grain sulfur per cubic foot (24,150 cf/hr x 1 grain S/cf x lb/7,000 grains x 2 lb SO_2 /lb S = 6.9 lb/hr). The hourly emissions of 6.9 lb/hr assumed 8,760 hours per year operation for the 30.22 tons/year limit in the permits. It should be noted that the amount, heat content and sulfur content of the biogas generated are dependent upon the process conditions and wastewater. The annual emission limit was designed to envelop the total amount of emission expected from the operation of the anaerobic reactor. The actual SO_2 emissions reported in the annual operating reports for the years 2000 and 2001 were 4.3 and 3.1 tons/year respectively. The emissions reductions associated with the closing of the glass plants will be approximately 500 tons/year for SO_2 and 300 tons/year of NO_x. These reductions are from the latest 2 years of operation (1999 and 2000 for Glass Plant No. 2, and 2000 and 2001 for Glass Plant No. 3).

1.3 REQUESTED CHANGES

A copy of the applicable portions of the Title V permit is contained in Attachment A. Changes in three conditions of the Title V permit are requested. The first deals with the capacity of the biogas flare while the second and third changes deal with the overall SO_2 emission limit cap established for

the biogas flare (Emission Unit 022) and the Cleaver Brooks steam boiler (Emission Unit No. 021). The requested changes are summarized below:

Change Condition G.1. from:

Capacity.

a. The maximum heat input rate of bio-gas burned in the flare shall not exceed 21.35 million Btus per hour (MMBtu/hr).

b. The total heat input to the bio-gas flare shall not exceed 18,659 MMBtu/12 consecutive month period.

Change Condition G.1. to:

Capacity.

a. The maximum heat input rate of bio-gas burned in the flare shall not exceed 21.35 million Btus per hour (MMBtu/hr).

b. The total heat input to the bio-gas flare shall not exceed 187,026 MMBtu/12 consecutive month period.

Change Conditions G.4. and F.4. from:

Overall SO_2 Emission Limit Cap – Total SO_2 emissions from the Glass Plant No. 2 furnace, the Glass Plant No. 3 furnace, the Anaerobic Reactor w/Bio-gas Flare, and the Cleaver Brooks Steam Boiler resulting from the combustion of biogas shall not exceed either of the following:

a. 6.9 pounds per hour on a calendar monthly average basis;

b. 30.22 tons in any consecutive 12 month period.

Change Conditions G.4. and F.4. to:

Overall SO_2 Emission Limit Cap – Total SO_2 emissions from the Anaerobic Reactor w/Bio-gas Flare, and the Cleaver Brooks Steam Boiler resulting from the combustion of biogas shall not exceed either of the following:

a. 6.9 pounds per hour on a calendar monthly average basis;

b. 30.22 tons in any consecutive 12 month period.

ATTACHMENT A

ANAEROBIC REACTOR WITH BIOGAS FLARE
CLEAVER BROOKS STEAM BOILER
TITLE V PERMIT 0810007-003-AV SUBSECTIONS G AND F

FINAL Permit No.: 0810007-003-AV

Subsection G. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-022	Anaerobic Reactor with Biogas Flare

The Bacardi anaerobic reactor is part of the waste water treatment system. As wastewater is treated in the reactor methane rich bio-gas is generated. The bio-gas is compressed and a portion is used to fuel a steam boiler. The remainder blends into the natural gas header for glass furnace Nos. 2 and 3 and is used as a supplemental fuel. Any excess bio-gas is incinerated in a flare (see below).

Air pollutants contained in the bio-gas, methane (VOC) and H_2S, are controlled by a John Zink Bio-Gas Flare system. This system is used as a flare to burn bio-gas in the event of a system upset (malfunction) and during periods of excess bio-gas production. The flare system is equipped with a pilot burner for system startup and flame stabilization. This pilot burner is fired with natural gas or propane. Sulfur dioxide emissions are controlled by limiting the sulfur content of the bio-gas.

{Permitting note(s): This emission unit is regulated under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration; and Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

G.1. Capacity.

a. The maximum heat input rate of bio-gas burned in the flare shall not exceed 21.35 million Btu per hour (MMBtu/hr).
b. The total heat input to the bio-gas flare shall not exceed 18,659 MMBtu/12 consecutive month period.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Air Construction Permit AC41-204587]

G.2. Methods of Operation - (i.e., Fuels) The only fuels authorized to be burned in the flare are bio-gas generated in the anaerobic reactor, and natural gas or propane used to fire the pilot burner. Bio-gas generated as a byproduct of the anaerobic reactor shall be burned as a fuel for the hot water boiler and as a supplemental fuel in Glass Plant Nos. 2 and 3, with the bio-gas flare used to incinerate excess bio-gas in the event of a system malfunction or during periods of excess bio-gas production.
[Rules 62-4.160(2) and 62-213.440(1), F.A.C.; Air Construction Permit AC41-204587]

Emission Limitations and Standards

G.3. Visible emissions from the bio-gas flare shall not exceed 20% opacity.
[Air Construction Permit AC41-204587; Rule 62-296.320(4)(b), F.A.C.]

G.4. Overall SO_2 Emission Limit Cap - Total sulfur dioxide (SO_2) emissions from the Glass Plant No. 2 furnace, the Glass Plant No. 3 Furnace, the Anaerobic Reactor w/Biogas Flare, and the Cleaver Brooks Steam Boiler resulting from the combustion of biogas shall not exceed either of the following:

a. 6.9 pounds per hour on a calendar monthly average basis;
b. 30.22 tons in any consecutive 12 month period.

[Rule 62-212.400(1)(c), F.A.C.; Air Construction Permit 0810007-006-AC]

Test Methods and Procedures

G.5. Test the visible emissions (VE) from the anaerobic reactor bio-gas flare annually on or during the 60 day period prior to March 18 (See Condition G.6.).
[Rule 62-297.310(7)(a)(4), F.A.C.]

G.6. Compliance with the emission limitation of Condition G.3 shall be determined using DEP Method 9 contained in Chapter 62-297, F.A.C. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60, Appendix A.
[Chapter 62-297, F.A.C.]

G.7. The sulfur content of the bio-gas shall be determined in accordance with Tropicana's Environmental Laboratory's Procedure "H_2S Determination Using Sulfur Chemiluminescence Detector", Reference ASTM Method D 5504-94.
[Air Construction Permit AC41-204587 as amended March 27, 1996; Rule 62-4.070(3), F.A.C.]

Recordkeeping and Reporting Requirements

G.8. Additional Recordkeeping Requirements - To demonstrate compliance with the overall biogas combustion sulfur dioxide (SO_2) emission limits in this permit, the permittee shall maintain a monthly Biogas SO_2 Emissions Log which shall:

a. Record daily biogas production (ft^3 biogas/day), and weekly H_2S concentration (H_2S ppmv) results. (Note: Biogas flow measured at 70°F.)
b. Calculate total sulfur dioxide emissions resulting from the combustion of biogas in units of pounds per hour on a monthly average basis using the formula shown below. (Note: H_2S density at 70°F: 0.0892 lb/ft^3.)

c. Calculate total sulfur dioxide (SO_2) emissions resulting from the combustion of biogas in units of tons per month using the formula shown below.
d. Calculate total sulfur dioxide (SO_2) emissions (tons/year) for the most recent 12 consecutive month period.

The permittee shall complete the calculations in b. through d. by the 15th of the following month. These records shall be recorded in a permanent form suitable for inspection by the Department upon request and shall be retained for at least a five (5) year period.

Formulas:

MO. AVG. H_2S ft^3/ft^3 biogas = (MO. AVG. H_2S ppmv) $x10^{-6}$

Biogas SO_2 emissions (lb/hr) = (MO. AVG. ft^3 biogas/day) x (1 day/24 hr) x (0.0892 lb H_2S/ft^3 H_2S) x (MO. AVG. H_2S ft^3/ft^3 biogas) x (64 lb SO_2/34 lb H_2S)

Biogas SO_2 emissions (tons/month) = (Total ft^3 biogas/month) x (0.0892 lb H_2S/ft^3 H_2S) x (MO. AVG. H_2S ft^3/ft^3 biogas) x (64 lb SO_2/34 lb H_2S) x (1 ton SO_2/2000 lb SO_2)
[Rule 62-213.440, F.A.C.; Air Construction Permit 0810007-006-AC]

G.9. In order to document compliance with Condition G.1, the permittee shall maintain a record of the hours of operation of the bio-gas flare. This log shall show the

a. date, start and end time for flare operation;
b. the reason for use of the flare (i.e. malfunction, excess bio-gas, etc.);
c. the estimated maximum flare bio-gas heat input rate (MMBtu/hour) during the period of use.

These records shall be recorded in a permanent form suitable for inspection by the Department upon request.
[Rule 62-213.440, F.A.C.; Air Construction Permit AC41-204587]

FINAL Permit No.: 0810007-003-AV

Subsection F. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-021	Steam Boiler

The Cleaver Brooks Model No. NCB700-250 package steam boiler is fired with (a) natural gas, (b) bio-gas, or (c) a mixture of natural gas and bio-gas. The maximum design heat input rate is 9.96 million Btu per hour.

Sulfur dioxide emissions are controlled by limiting the sulfur content of the bio-gas.

{Permitting note(s): This emission unit is regulated under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration; and Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with less than 250 Million Btu per Hour Heat Input, New and Existing Emissions Units.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

F.1. Capacity. The maximum heat input to the Steam Boiler shall not exceed 9.96 million Btu per hour.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Air Construction Permit AC41-204588]

F.2. Methods of Operation - (i.e., Fuels) The Steam Boiler shall be fired with natural gas and/or bio-gas only. Bio-gas and natural gas may be mixed and burned simultaneously.
[Rules 62-4.160(2), and 62-213.440(1), F.A.C.; Air Construction Permit AC41-204588 and BACT Determination dated October 13, 1992]

Emission Limitations and Standards

F.3. Visible emissions shall not exceed 20% opacity except for one six-minute period per hour during which opacity shall not exceed 27%.
[Rule 62-296.406(1), F.A.C.]

F.4. Overall SO_2 Emission Limit Cap - Total sulfur dioxide (SO_2) emissions from the Glass Plant No. 2 furnace, the Glass Plant No. 3 Furnace, the Anaerobic Reactor w/Biogas Flare, and the Cleaver Brooks Steam Boiler resulting from the combustion of biogas shall not exceed either of the following:

a. 6.9 pounds per hour on a calendar monthly average basis;
b. 30.22 tons in any consecutive 12 month period.

[Rule 62-212.400(1)(c), F.A.C.; Air Construction Permit 0810007-006-AC]

Test Methods and Procedures

F.5. Test the visible emissions (VE) from the Steam Boiler exhaust, annually on or during the 60 day period prior to March 18 (See Condition F.6.).
[Rule 62-297.310(7)(a)(4), F.A.C.]

F.6. Compliance with the emission limitation of Condition F.3 shall be determined using DEP Method 9 contained in Chapter 62-297, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60, Appendix A.
[Chapter 62-297, F.A.C.]

F.7. The sulfur content of the bio-gas shall be determined in accordance with Tropicana's Environmental Laboratory's Procedure "H_2S Determination Using Sulfur Chemiluminescence Detector", Reference ASTM Method D 5504-94.
[Rule 62-4.070(3), F.A.C.; Air Construction Permit AC41-204588 as amended March 27, 1996]

Recordkeeping and Reporting Requirements

F.8. Additional Recordkeeping Requirements - To demonstrate compliance with the overall biogas combustion sulfur dioxide (SO_2) emission limits in this permit, the permittee shall maintain a monthly Biogas SO_2 Emissions Log which shall:

a. Record daily biogas production (ft^3 biogas/day), and weekly H_2S concentration (H_2S ppmv) results. (Note: Biogas flow measured at 70°F.)
b. Calculate total sulfur dioxide emissions resulting from the combustion of biogas in units of pounds per hour on a monthly average basis using the formula shown below. (Note: H_2S density at 70°F: 0.0892 lb/ft^3.)
c. Calculate total sulfur dioxide (SO_2) emissions resulting from the combustion of biogas in units of tons per month using the formula shown below.
d. Calculate total sulfur dioxide (SO_2) emissions (tons/year) for the most recent 12 consecutive month period.

The permittee shall complete the calculations in b. through d. by the 15th of the following month. These records shall be recorded in a permanent form suitable for inspection by the Department upon request and shall be retained for at least a five (5) year period.

Formulas:

MO. AVG. H_2S ft^3/ft^3 biogas = (MO. AVG. H_2S ppmv) $x10^{-6}$

Biogas SO_2 emissions (lb/hr) = (MO. AVG. ft^3 biogas/day) x (1 day/24 hr) x (0.0892 lb H_2S/ft^3 H_2S) x (MO. AVG. H_2S ft^3/ft^3 biogas) x (64 lb SO_2/34 lb H_2S)

Biogas SO_2 emissions (tons/month) = (Total ft^3 biogas/month) x (0.0892 lb H_2S/ft^3 H_2S) x (MO. AVG. H_2S ft^3/ft^3 biogas) x (64 lb SO_2/34 lb H_2S) x (1 ton SO_2/2000 lb SO_2)
[Rule 62-213.440, F.A.C.; Air Construction Permit 0810007-006-AC]