

Department of Environmental Protection

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

David B. Struhs Secretary

Permit No.: 0810007-013-AC

P.E. Certification Statement

Permittee:

Tropicana Products, Inc. Bradenton Plant

Project type: Air Construction Permit for Biogas Combustion

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

Scott M. Sheplak, P.E.

Registration Number: 48866

Permitting Authority:

Department of Environmental Protection Bureau of Air Regulation 111 South Magnolia Drive, Suite 4 Tallahassee, Florida 32301

Telephone: 850/921-9532

Fax: 850/922-6979



Department of Environmental Protection

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

David B. Struhs Secretary

April 4, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Michael Haycock Vice President, Manufacturing Tropicana Products, Inc. PO Box 338 Bradenton, Florida 34206

Re: DEP File No. 0810007-013-AC

Biogas Combustion

Dear Mr. Haycock:

Enclosed is one copy of the draft air construction permit to Tropicana Products, Inc. to allow all of the biogas produced in a 12 consecutive month period to be burned by the Biogas Flare at the anaerobic reactor (Emissions Unit I.D. No. –022) and the emissions cap associated with the combustion of the biogas to be accounted for at the flare and boiler, only, at the existing citrus juice processing plant located at 1001 13th Avenue, Bradenton, Manatee County. The Technical Evaluation and Preliminary Determination, the Department's Intent to Issue Air Construction Permit and the Public Notice of Intent to Issue Air Construction Permit are also included.

The <u>Public Notice of Intent to Issue Air Construction Permit</u> must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Scott M. Sheplak, P.E., Administrator, Title V Section at the above letterhead address. If you have any other questions, please contact Edward J. Svec at 850/921-8985.

Sincerely,

Trina Vielhauer, Chief Bureau of Air Regulation

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TV/es

Enclosures

In the Matter of an Application for Permit by:

Michael Haycock, Vice President, Mfg. Tropicana Products, Inc. PO Box 338 Bradenton, Florida 34206 DEP File No. 0810007-013-AC Biogas Combustion Manatee County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

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

The applicant, Tropicana Products, Inc., applied on February 13, 2003, to the Department for an air construction permit for its existing citrus juice processing facility located at 1001 13th Avenue, Bradenton, Manatee County. The project is to allow all of the biogas produced in a 12 consecutive month period to be burned by the Biogas Flare at the anaerobic reactor (Emissions Unit I.D. No. –022). The emissions cap associated with the combustion of the biogas will be accounted for at the flare and boiler, only.

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

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

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

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

The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen (14) days from the date of publication of <u>Public Notice of Intent to Issue Air Construction Permit</u>. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

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

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the

Tropicana Products, Inc. DEP File No. 0810007-013-AC Page 2 of 3

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

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

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

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

Mediation is not available in this proceeding.

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

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

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section

Tropicana Products, Inc. DEP File No. 0810007-013-AC Page 3 of 3

120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

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

Executed in Tallahassee, Florida.

Trina Vielhauer, Chief Bureau of Air Regulation

Jua & Volhauer

CERTIFICATE OF SERVICE

Mr. Michael Haycock, Tropicana Products, Inc. *

Mr. Ken Kosky, P.E., Golder

Mr. Eric Peterson, P.E., DEP SWD

Ms. Karen Collins-Fleming, Manatee Co. EMD

Clerk Stamp

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

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(Date)

#### PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0810007-013-AC

Tropicana Products, Inc.
Manatee County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Tropicana Products, Inc. for its existing citrus juice processing facility located at 1001 13th Avenue, Bradenton, Manatee County. The applicant's mailing address is: PO Box 338, Bradenton, Florida 34206. The project is to allow all of the biogas produced in a 12 consecutive month period to be burned by the Biogas Flare at the anaerobic reactor (Emissions Unit I.D. No. –022). The emissions cap associated with the combustion of the biogas will be accounted for at the flare and boiler, only.

Total emissions increase of sulfur dioxide from the combustion of all of the biogas produced in a 12 month period authorized by this permit will not exceed 26.52 tons per year. A determination of Best Available Control Technology was not required.

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

The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

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

Mediation is not available in this proceeding.

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

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

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

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

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

Dept. of Environmental Protection Bureau of Air Regulation Suite 4, 111 S. Magnolia Drive Tallahassee, Florida, 32301 Telephone: 850/488-0114

Fax: 850/922-6979

Dept. of Environmental Protection Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619-8218 Telephone: 813/744-6100

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

#### 1 APPLICANT NAME AND ADDRESS

Tropicana Products, Inc. PO Box 338 Bradenton, Florida 34206

Authorized Representative: Michael Haycock, Vice President, Manufacturing

# 2 FACILITY DESCRIPTION, PROJECT DETAILS AND RULE APPLICABILITY

The facility is an existing citrus juice processing facility. Included in the facility is an anaerobic reactor, which is a part of its wastewater treatment system. The biogas produced by the anaerobic digester is currently authorized to be burned in the No. 2 and No. 3 Glass Plants; a small steam boiler; and/or, a biogas flare. The No. 2 Glass Plant (Emissions Unit I.D. No. –012) stopped operation in 2000 and the No. 3 Glass Plant (Emissions Unit I.D. No. –014) is scheduled to stop operation the winter of 2003. The closing of the glass plants will mean the biogas can only be burned in the boiler (Emissions Unit I.D. No. –021) and the flare (Emissions Unit I.D. No. –022). The current Title V permit restricts the total heat input for the biogas flare to 18,659 MMBtu per 12 consecutive months and the boiler to 9.96 MMBtu per hour of natural gas and/or biogas. These restrictions are based on the assumption that the glass plants would combust most of the 187,026 MMBtu annual production of biogas. The project allows all of the biogas produced in a 12 consecutive month period to be burned by the Biogas Flare at the anaerobic reactor (Emissions Unit I.D. No. –022) and the emissions cap associated with the combustion of the biogas to be accounted for at the flare and boiler, only. The applicant did not seek any relaxation in currently enforceable conditions in its existing emissions units.

Emissions units addressed by this permit are:

## E.U. ID

No. Brief Description

-021 Steam Boiler

-022 Anaerobic Reactor with Biogas Flare

The emissions increase associated with this project was estimated as follows in tons per year. No contemporaneous emissions were assumed in this estimate.

| Pollutant       | Net Increase 1 | PSD Significance | Subject to PSD? |
|-----------------|----------------|------------------|-----------------|
| SO <sub>2</sub> | 26.52          | 40               | No              |

Potential emissions (shown as net increase) were estimated by the Department from the requested allowable emissions rates and the past actual emissions.

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, F.S., and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The existing facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment or unclassifiable for the criteria pollutants ozone, PM<sub>10</sub>, carbon monoxide, SO<sub>2</sub>, nitrogen dioxide and lead. This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant exceed 100 tons per year (TPY). The Department has previously found that citrus juice processing facilities such as this facility have potential emissions of VOC exceeding 250 TPY.

This facility is not within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1 of Chapter 62-212, F.A.C. Because emissions are greater than 250 TPY for at least one criteria pollutant (VOC), the facility is also an existing Major Facility with respect to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD). The net increase in emissions of SO<sub>2</sub> does not exceed the PSD significance level of Table 212.400-2, F.A.C. Therefore, the project is not subject to PSD New Source Review (NSR) requirements of Rule 62-212.400(5), F.A.C., for this pollutant.

The applicant stated that this facility is a major source of hazardous air pollutants (HAPs). This project is not subject to a case-by-case MACT determination per Rule 62-204.800(10)(d)2, F.A.C., because it does not result in the construction or reconstruction of a major source of HAP emissions. This project is not subject to any requirements under the National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61 or 63.

## 3 SOURCE IMPACT ANALYSIS

An impact analysis was not required for this project because it is not subject to the requirements of PSD NSR.

#### 4 EXCESS EMISSIONS

Excess emissions for this emissions unit are specified in Section II of the permit. This permitting action does not change any authorization for excess emissions provided by other Department permits for other emissions units.

## 5 LIMITS AND COMPLIANCE REQUIREMENTS

The permit maintains the previously established limits on the operation of the boiler and flare, with the exception of the maximum, 12 consecutive month, heat input to the flare. The accounting of sulfur dioxide emissions from combustion of biogas is now calculated at the boiler and flare, only. New limits were imposed on the operation of the gas turbine for fuel sulfur content, nitrogen oxides and carbon monoxide. Additional specific emission limits were not imposed because the potential emissions are well below the PSD significance criteria. The operating limits and the compliance requirements are detailed in Section III of the permit.

#### 6 PRELIMINARY DETERMINATION

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

#### 7 FINAL DETERMINATION

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

# DETAILS OF THIS ANALYSIS MAY BE OBTAINED BY CONTACTING:

Edward J. Svec, Engineer IV
Department of Environmental Protection
Bureau of Air Regulation
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114



# Department of Environmental Protection

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

David B. Struhs Secretary

#### **PERMITTEE**

Tropicana Products, Inc. PO Box 338 Bradenton, Florida 34206 
 Permit No.
 0810007-013-AC

 Project
 Biogas Combustion

 SIC No.
 2033, 2037, 2048

Expires: ^DRAFT

#### Authorized Representative:

Michael Haycock, Vice President, Mfg.

# PROJECT AND LOCATION

This permit authorizes Tropicana Products, Inc. to combust a maximum of 187,026 million Btu per 12 consecutive months in the Anaerobic Reactor with Biogas Flare and the Cleaver Brooks Steam Boiler. The project is necessary due to the shutdown of the No. 2 and No. 3 Glass Plants.

This facility is located at 1001 13th Avenue, Bradenton, Manatee County. The UTM coordinates are: Zone 17; 561.4 km E and 3056.5 km N.

#### STATEMENT OF BASIS

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

#### APPENDICES

The attached appendix is a part of this permit:

Appendix GC General Permit Conditions

Howard L. Rhodes, Director Division of Air Resource Management

"More Protection, Less Process"

Printed on recycled paper.

#### SECTION I. FACILITY INFORMATION

#### FACILITY AND PROJECT DESCRIPTION

The facility is an existing citrus juice processing facility. Included in the facility is an anaerobic reactor, which is a part of its wastewater treatment system. The biogas produced by the anaerobic digester is currently authorized to be burned in the No. 2 and No. 3 Glass Plants; a small steam boiler; and/or, a biogas flare. The No. 2 Glass Plant (Emissions Unit I.D. No. –012) stopped operation in 2000 and the No. 3 Glass Plant (Emissions Unit I.D. No. –014) is scheduled to stop operation the winter of 2003. The closing of the glass plants will mean the biogas can only be burned in the boiler (Emissions Unit I.D. No. –021) and the flare (Emissions Unit I.D. No. –022). The current Title V permit restricts the total heat input for the biogas flare to 18,659 MMBtu per 12 consecutive months and the boiler to 9.96 MMBtu per hour of natural gas and/or biogas. These restrictions are based on the assumption that the glass plants would combust most of the 187,026 MMBtu annual production of biogas. The project allows all of the biogas produced in a 12 consecutive month period to be burned by the Biogas Flare at the anaerobic reactor (Emissions Unit I.D. No. –022) and the emissions cap associated with the combustion of the biogas to be accounted for at the flare and boiler, only. The applicant did not seek any relaxation in currently enforceable conditions in its existing emissions units.

The annual potential emissions associated with this project in tons per year is approximately: SO<sub>2</sub>, 26.52. The facility information, project scope, emissions and rule applicability are described in detail in the Department's <u>Technical Evaluation and Determination</u>.

#### REVIEWING AND PROCESS SCHEDULE

February 13, 2003 Received permit application (no application fee required)

February 13, 2003 Application complete

Distributed Notice of Intent to Issue and supporting documents

Notice of Intent published in the XXX

#### RELEVANT DOCUMENTS

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

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

# SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

The following specific conditions apply to all emissions units at this facility addressed by this permit.

#### **ADMINISTRATIVE**

- Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, phone number 850/488-0114. All documents related to reports, tests, minor modifications and notifications shall be submitted to the Department's Southwest District office at 3804 Coconut Palm Drive, Tampa, Florida 33619-8218, and phone number 813/744-6100.
- 2. <u>General Conditions</u>: The owner and operator are subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- 3. <u>Terminology</u>: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- 4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S.; Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297; and, the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
- 5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
- 6. Expiration: This air construction permit shall expire on ^DRAFT. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C]
- 7. <u>Modifications</u>: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
- 8. <u>Title V Operation Permit Required</u>: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A revision to the Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for a Title V operation permit at least ninety days prior to

# SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Southwest District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

#### **OPERATIONAL REQUIREMENTS**

- 9. <u>Plant Operation Problems</u>: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's Southwest District office. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]
- 10. <u>Circumvention</u>: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]
- 11. Excess Emissions: This permit does not change any authorization for excess emissions provided by other Department permits for other emissions units. The following excess emissions provisions of state rule apply to these emissions units (emissions unit 021, 022) as specified below.
  - (a) Excess emissions resulting from start-up and shutdown are permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period.
  - (b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited.
  - (c) Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.

[Rules 62-210.700(1), (4) and (5), F.A.C.]

#### COMPLIANCE MONITORING AND TESTING REQUIREMENTS

- 12. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]
  - (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
  - (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured

# SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

# REPORTING AND RECORD KEEPING REQUIREMENTS

- 13. <u>Duration of Record Keeping</u>: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]
- 14. Excess Emissions Report: In case of excess emissions resulting from malfunction, the owner or operator shall notify the Department's Southwest District office within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rules 62-4.130 and 62-210.700(6), F.A.C.]
- 15. <u>Annual Operating Report for Air Pollutant Emitting Facility</u>: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's Southwest District office and, if applicable, the appropriate local program by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

# SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

The following specific conditions apply to the following emissions units after construction.

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) biogas, or (c) a mixture of natural gas and biogas. 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 biogas.

{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

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

#### **Emission Limitations and Standards**

- **A.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.]
- A.4. Overall SO<sub>2</sub> Emission Limit Cap Total sulfur dioxide (SO<sub>2</sub>) emissions from 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.; and, 0810007-013-AC]

# SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

#### Test Methods and Procedures

- A.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 A.6.). [Rule 62-297.310(7)(a)(4), F.A.C.]
- A.6. Compliance with the emission limitation of Condition A.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.]
- A.7. The sulfur content of the biogas shall be determined in accordance with Tropicana's Environmental Laboratory's Procedure "H<sub>2</sub>S Determination Using Sulfur Chemiluminescence Detector", Reference ASTM Method D 5504-94. [Rule 62-4.070(3), F.A.C.; and, AC41-204588 as amended March 27, 1996]

# Recordkeeping and Reporting Requirements

- A.8. Additional Recordkeeping Requirements To demonstrate compliance with the overall biogas combustion sulfur dioxide (SO<sub>2</sub>) emission limits in this permit, the permittee shall maintain a monthly Biogas SO<sub>2</sub> Emissions Log which shall:
  - a. Record daily biogas production (ft³ biogas/day), and weekly H<sub>2</sub>S concentration (H<sub>2</sub>S 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<sub>2</sub>S density at 70°F: 0.0892 lb/ft<sup>3</sup>.)
  - c. Calculate total sulfur dioxide (SO<sub>2</sub>) emissions resulting from the combustion of biogas in units of tons per month using the formula shown below.
  - d. Calculate total sulfur dioxide (SO<sub>2</sub>) 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:

 $\overline{MO}$ . AVG. H<sub>2</sub>S ft<sup>3</sup>/ft<sup>3</sup> biogas = (MO. AVG. H<sub>2</sub>S ppmv) x10<sup>-6</sup>

 $\frac{\text{Biogas SO}_2 \text{ emissions (lb/hr)}}{\text{(MO. AVG. ft}^3 \text{ biogas/day)}} \times \text{(1 day/24 hr)} \times \text{(0.0892 lb H}_2\text{S/ft}^3 \text{H}_2\text{S)} \times \text{(MO. AVG. H}_2\text{S ft}^3/\text{ft}^3 \text{ biogas)} \times \text{(64 lb SO}_2/34 lb H}_2\text{S)}$ 

Biogas SO<sub>2</sub> emissions (tons/month) = (Total ft³ biogas/month) x (0.0892 lb  $H_2S/ft³ H_2S$ ) x (MO. AVG.  $H_2S$  ft³/ft³ 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.; and, 0810007-006-AC]

## SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

The following specific conditions apply to the following emissions units after construction.

<u>E.U.</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 biogas is generated. The biogas is compressed and a portion is used to fuel a steam boiler. Any excess biogas is incinerated in a flare (see below).

Air pollutants contained in the biogas, methane (VOC) and H<sub>2</sub>S, are controlled by a John Zink Bio-Gas Flare system. This system is used as a flare to burn biogas in the event of a system upset (malfunction) and during periods of excess biogas 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 biogas.

{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

#### **B.1.** Capacity.

- a. The maximum heat input rate of biogas burned in the flare shall not exceed 21.35 million Btu per hour (MMBtu/hr).
- b. The total heat input to the biogas flare shall not exceed 187,026 MMBtu/12 consecutive month period.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, 0810007-013-AC]

**B.2.** Methods of Operation - (i.e., Fuels) The only fuels authorized to be burned in the flare are biogas generated in the anaerobic reactor, and natural gas or propane used to fire the pilot burner. Biogas generated as a byproduct of the anaerobic reactor shall be burned as a fuel for the hot water boiler, with the biogas flare used to incinerate excess biogas in the event of a system malfunction or during periods of excess biogas production. [Rules 62-4.160(2) and 62-213.440(1), F.A.C.]

#### **Emission Limitations and Standards**

- **B.3.** Visible emissions from the biogas flare shall not be equal to or exceed 20% opacity. [AC41-204587; and, Rule 62-296.320(4)(b), F.A.C.]
- **B.4.** Overall SO<sub>2</sub> Emission Limit Cap Total sulfur dioxide (SO<sub>2</sub>) emissions from 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:

Tropicana Products, Inc. Biogas Combustion

# SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- 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.; and, 0810007-013-AC]

#### Test Methods and Procedures

- **B.5.** Test the visible emissions (VE) from the anaerobic reactor biogas flare annually on or during the 60 day period prior to March 18 (See Condition B.6.). [Rule 62-297.310(7)(a)(4), F.A.C.]
- **B.6.** Compliance with the emission limitation of Condition B.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.]
- **B.7.** The sulfur content of the biogas shall be determined in accordance with Tropicana's Environmental Laboratory's Procedure "H<sub>2</sub>S Determination Using Sulfur Chemiluminescence Detector", Reference ASTM Method D 5504-94. [AC41-204587 as amended March 27, 1996; and, Rule 62-4.070(3), F.A.C.]

## Recordkeeping and Reporting Requirements

- **B.8.** Additional Recordkeeping Requirements To demonstrate compliance with the overall biogas combustion sulfur dioxide (SO<sub>2</sub>) emission limits in this permit, the permittee shall maintain a monthly Biogas SO<sub>2</sub> Emissions Log which shall:
  - a. Record daily biogas production (ft³ biogas/day), and weekly H<sub>2</sub>S concentration (H<sub>2</sub>S 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/ft³.)
  - c. Calculate total sulfur dioxide (SO<sub>2</sub>) emissions resulting from the combustion of biogas in units of tons per month using the formula shown below.
  - d. Calculate total sulfur dioxide (SO<sub>2</sub>) 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:

 $\overline{\text{MO. AVG. H}_2\text{S ft}^3/\text{ft}^3\text{ biogas}} = (\text{MO. AVG. H}_2\text{S ppmv}) \times 10^{-6}$ 

<u>Biogas SO<sub>2</sub> emissions (lb/hr)</u> = (MO. AVG. ft<sup>3</sup> biogas/day) x (1 day/24 hr) x (0.0892 lb  $H_2S/ft^3H_2S$ ) x (MO. AVG.  $H_2S$  ft<sup>3</sup>/ft<sup>3</sup> biogas) x (64 lb  $SO_2/34$  lb  $H_2S$ )

# SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Biogas SO<sub>2</sub> emissions (tons/month) = (Total ft³ biogas/month) x (0.0892 lb  $H_2S/ft^3H_2S$ ) x (MO. AVG.  $H_2S$  ft³/ft³ 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.; and, 0810007-006-AC]

- **B.9.** In order to document compliance with Condition G.1, the permittee shall maintain a record of the hours of operation of the biogas 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 biogas, etc.);
  - c. the estimated maximum flare biogas 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.; and, AC41-204587]

#### **SENDER: COMPLETE THIS SECTION** COMPLETE THIS SECTION ON DELIVERY A. Signature ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Agent Print your name and address on the reverse Addressee so that we can return the card to you. Date of Delivery Attach this card to the back of the mailpiece, or on the front if space permits. D. Is delivery address different of YES, enter delivery and 1. Article Addressed to: Mr. Michael Haycock Vice President, Manufacturing Tropicana Products, Inc. APR - 9 2003 P.O. Box 338 Bradenton, Florida 34206 3. Service Type Certified Mail ☐ Registered Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D. 4. Restricted Delivery? (Extra Fee) Yes 2. Article Number (Transfer from service label) 7000 2870 0000 7028 0856 PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

**U.S. Postal Service CERTIFIED MAIL RECEIPT** (Domestic Mail Only; No Insurance Coverage Provided) Mr. Michael Haycock 7028 Postage Certified Fee Postmark Return Receipt Fee (Endorsement Required) Here Restricted Delivery Fee (Endorsement Required) Total Postage & Fees Sent To 40 Mr. Michael Haycock, Vice President Street, Apt. No.; or PO Box No. P.O. Box 338,

# Memorandum

# Florida Department of Environmental Protection

TO:

Trina Vielhauer

THRU:

Scott Sheplak B

FROM:

Ed Svec Effect

DATE:

March 31, 2003

SUBJECT:

Tropicana Products, Inc.

**Biogas Combustion** 

Attached for approval and signature is an intent to issue a construction permit to allow Tropicana Products, Inc. to burn all of the biogas produced in a 12 consecutive month period in the Biogas Flare at the anaerobic reactor (Emissions Unit I.D. No. –022). The emissions cap associated with the combustion of the biogas will be accounted for at the flare and boiler, only.

This project is not subject to PSD because the associated emissions increases are not significant for PSD. Total emissions increase in sulfur dioxide will not exceed 26.52 tons per year, if all of the biogas was combusted in the flare.

I recommend your approval and signature.

March 31, 2003 is day 45 of the 90 day timeclock.

#### Attachments

/es

1 why new limits on gres terrbine

50 50 , only calculated on place & bould be deleting (plans mills!

- any need to require and gran plant to retire to temperapural et does?

did it refire? Is it removed from TV permit?

Box Soo cap in place à boiler is for biogras contristion inly so how know y complying? Do method 90 when any using brogas?