### STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF FINAL PERMIT

In the Matter of an Application for Permit by:

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

DEP File No. 0870007-011-AC New Gas Turbine Manatee County

Enclosed is Final Permit Number 0870007-010-AC. This permit authorizes Tropicana Products, Inc. to install a new General Electric Model LM 6000 gas turbine, which will utilize the existing Heat Recovery Steam Generator, at its existing facility located at 1001 13th Avenue, Bradenton, Manatee County. This permit is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

A. A. Linero, P.E.

Bureau of Air Regulation

### **CERTIFICATE OF SERVICE**

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

Mr. Michael Haycock, Tropicana Products, Inc. \*

Mr. Ken Kosky, P.E., Golder

Mr. Gerald Kissel, P.E., DEP SWD

Mr. Marion Forthoffer, 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.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.  Print your name and address on the reverse so that we can return the card to you.  Attach this card to the back of the mailpiece, or on the front if space permits.  Article Addressed to:  Mr. Michael Haycock, Vice President Mfg.  Tropicana Products, Inc.  P.O. Box 338  Bradenton, Florida 34206	A. Received by (Please Print Clearly)  B. Date of Delivery  C. Signature  Agent  Addressee  D. Is delivery address priement from the 12 yes  If YES, enter pelivery address below:  No  CT 25 2002  3. Service Type  CD Xcertified Mail
Article Number (Copy from service label)	4. Restricted Delivery? (Extra Fee)
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S Form 3811, July 1999 Domestic F	Return Receipt 102595-00-M-0952

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t 7	Article Sent To:			
и <b>6</b>	Mr. Michael	Haycock,	Vice	President,Mfg.
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700	City State ZIP+4 Bradenton,		206	
	PS Lorm 3800 July 1999			See Reverse for Instructions

### 1 APPLICANT NAME AND ADDRESS

Tropicana Products, Inc.

PO Box 338

Bradenton, Florida 34206

Authorized Representative: Michael Haycock, Vice President, Mfg.

### 2 FACILITY DESCRIPTION, PROJECT DETAILS AND RULE APPLICABILITY

The facility is an existing citrus juice processing facility. The project is the installation of a new General Electric Model LM 6000 gas turbine to replace an existing General Electric Model LM 5000 gas turbine (Emissions Unit I.D. No. –016). The existing Heat Recovery Steam Generator (HRSG) will be utilized with the new turbine. The applicant did not seek any relaxation in currently enforceable conditions in its existing emissions units.

Emissions unit addressed by this permit is:

E.U. ID

No. Brief Description

-026 New Gas Turbine/Existing HRSG at Cogeneration Plant

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

Pollutant	Net Increase 1	PSD Significance	Subject to PSD?
PM/ PM <sub>10</sub>	8.4	25/15	No
$SO_2$	4.8	40	No
NOx	35.6	40	No
CO	91.0	100	No
VOC	1.7	40	No

Potential emissions (shown as net increase) were estimated by the Department from the manufacturer's design fuel use at 70°F inlet temperature, 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 PM/PM<sub>10</sub>, CO, NO<sub>X</sub>, SO<sub>2</sub>, and VOC do not exceed the PSD significance levels 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 these pollutants.

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

### TECHNICAL EVALUATION AND FINAL DETERMINATION

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. The excess emissions provisions of state rule cannot be used to vary any NSPS requirements applicable to this emissions unit.

### 5 LIMITS AND COMPLIANCE REQUIREMENTS

The permit maintains the previously established limits on the operation of the HRSG. 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 and are not specifically regulated by the NSPS. 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 installation of the new gas turbine, subject to the terms and conditions of the draft permit.

### 7 FINAL DETERMINATION

An "INTENT TO ISSUE AIR CONSTRUCTION PERMIT" to Tropicana Products, Inc. for their existing citrus juice processing plant located at 1001 13th Avenue, Bradenton, Manatee County was clerked on September 12, 2002. The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" was published in the Bradenton Herald on September 27, 2002. The Draft Air Construction Permit was available for public inspection at the Southwest District office in Tampa and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was received on October 7, 2002.

Comments were received during the fourteen (14) day public comment period from Tropicana Products, Inc. Listed below is a response to each comment in the order that the comment was received. The comment(s) will not be restated.

1.R: The Department agrees with the comment and the following change is made.

From: The natural gas fired General Electric (GE) LM 6000 gas turbine (GT), equipped with a low NO<sub>X</sub> burner, has a maximum design heat input capacity of 434 MMBtu per hour (HHV) at 52°F, and a natural gas fired Heat Recovery Steam Generator (HRSG) with a maximum design heat input capacity of 104 MMBtu per hour. The cogeneration project has an electric generation capacity of 49.9 MW.

To: The natural gas fired General Electric (GE) LM 6000 gas turbine (GT), equipped with NO<sub>X</sub> control, has a maximum design heat input capacity of 456 MMBtu per hour (HHV) at 49.9 megawatts

(MW), and a natural gas fired Heat Recovery Steam Generator (HRSG) with a maximum design heat input capacity of 104 MMBtu per hour. The cogeneration project has an electric generation capacity of 49.9 MW.

2.R: The Department agrees with the comment and the following change is made.

From: 1. Capacity.

- a. The maximum heat input to the Gas Turbine shall not exceed 434 MMBtu per hour (HHV) at 52°F.
- b. The maximum heat input to the Heat Recovery Steam Generator shall not exceed 104 MMBtu per hour (99 MCF/hr of natural gas).
- c. Heat input to the Heat Recovery Steam Generator shall not exceed 91 MMBtu per hour on a 30 day rolling average basis.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; AC41-157745; and, Applicant request dated 8/27/02]

To: 1. Capacity.

- a. The maximum heat input to the Gas Turbine shall not exceed 456 MMBtu per hour (HHV) at 49.9 MW. Electrical power from the gas turbine shall be limited to 49.9 MW on an hourly basis.
- b. The maximum heat input to the Heat Recovery Steam Generator shall not exceed 104 MMBtu per hour (99 MCF/hr of natural gas).
- c. Heat input to the Heat Recovery Steam Generator shall not exceed 91 MMBtu per hour on a 30 day rolling average basis.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; AC41-157745; and, Applicant request dated 8/27/02]

- 3.R: The Department agrees with the comment and the following change is made.
  - From: 2. Methods of Operation (i.e., Fuels) The Gas Turbine/Heat Recovery Steam Generator shall fire natural gas only. The sulfur content of the fuel (natural gas) used in the Gas Turbine shall not exceed one gram sulfur per 100 cubic feet. [Rules 62-4.160(2), 62-204.800(7)(b)39, and 62-213.440(1), F.A.C.; AC41-157745; and, Applicant request dated 8/27/02]
  - To: 2. Methods of Operation (i.e., Fuels) The Gas Turbine/Heat Recovery Steam Generator shall fire natural gas only. The sulfur content of the fuel (natural gas) used in the Gas Turbine shall not exceed one grain sulfur per 100 cubic feet. [Rules 62-4.160(2), 62-204.800(7)(b)39, and 62-213.440(1), F.A.C.; AC41-157745; and, Applicant request dated 8/27/02]
- **4.R:** The Department agrees with the comment and the following change is made.

From: 6. Emissions from the Heat Recovery Steam Generator shall not exceed any of the following:

	Heat Recovery Steam Generator		
Pollutant	Pounds per Hour <sup>1</sup>	Tons per Year¹	
NOx	10.4	39.9	
СО	14.56	55.8	

PM/PM <sub>10</sub>	0.25	0.95
SO <sub>2</sub>	0.29	0.60
VOC	4.16	15.9

<sup>1</sup>Note: Heat Recovery Steam Generator pounds per hour emissions are based on 104 MMBtu/hr maximum heat input rate, while the tons/yr emissions are based on the 91 MMBtu/hr maximum 30 day rolling average heat input rate. [Air Construction Permit AC41-157745 as amended May 20, 1992]

To: 6. Emissions from the Heat Recovery Steam Generator shall not exceed any of the following:

	Heat Recovery Steam Generator	
Pollutant	Pounds per Hour¹	Tons per Year <sup>1</sup>
NOx	10.4	39.9
CO	14.56	55.8
PM/PM <sub>10</sub>	1.04	4.0
SO <sub>2</sub>	0.29	0.60
VOC	4.16	15.9

Note: Heat Recovery Steam Generator pounds per hour emissions are based on 104 MMBtu/hr maximum heat input rate, while the tons/yr emissions are based on the 91 MMBtu/hr maximum 30 day rolling average heat input rate. [Air Construction Permit 0810007-009-AC]

- **5.R:** The Department agrees with the comment and the following change is made.
  - From: 8. Compliance with the emission limitations of Conditions 3 through 6, of this section, shall be determined using the following EPA Methods contained in 40 CFR 60, Appendix A and adopted by reference in Chapter 62-297, F.A.C.
    - a. EPA Method 5, 5B, or 17 for PM
    - b. EPA Method 201 or 201A for PM<sub>10</sub> (recommended)
    - c. EPA Method 7/20 or 7E for NOx
    - d. EPA Method 9 for VE
    - e. EPA Method 10 for CO
    - f. EPA Method 25A for VOC

The minimum requirements for stationary point source emission test procedures and reporting shall be in accordance with 40 CFR 60 Appendix A and Chapter 62-297, F.A.C. [Chapter 62-297, F.A.C.; Air Construction Permit AC41-157745]

- **To:** 8. Compliance with the emission limitations of Conditions 3 through 6, of this section, shall be determined using the following EPA Methods contained in 40 CFR 60, Appendix A and adopted by reference in Chapter 62-297, F.A.C.
  - a. EPA Method 5, 5B, or 17 for PM
  - b. EPA Method 201 or 201A for PM<sub>10</sub> (recommended)
  - c. EPA Method 7/20 or 7E for NOx

- d. EPA Method 9 for VE
- e. EPA Method 10 for CO
- f. EPA Method 18 or 25A for VOC

The minimum requirements for stationary point source emission test procedures and reporting shall be in accordance with 40 CFR 60 Appendix A and Chapter 62-297, F.A.C. [Chapter 62-297, F.A.C.; Air Construction Permit AC41-157745]

**6.R:** The Department agrees with the comment and the following change is made.

From: 10. Testing of emissions must be conducted during operation of the Gas Turbine at a heat input rate within 95-100% of the maximum capacity achievable for the average ambient temperature during the compliance tests (or at a heat input rate between 90-100% of the maximum permitted heat input rate of 434 MMBtu per hour (HHV) at 52°F.) and operation of the Heat Recovery Steam Generator at a heat input rate within 90 to 100% of the maximum permitted rate of 104 MMBTU per hour. The turbine manufacturer's capacity vs. ambient temperature curve shall be included with the test report. A compliance test submitted at operating rates less than those specified above will automatically constitute an amended permit at the lesser rates until another test showing compliance at higher rates is submitted. Failure to submit the operating (heat input) rates or operation at conditions that do not represent normal operating conditions may invalidate the test. [Rule 62-4.070(3), F.A.C.]

To: 10. Testing of emissions must be conducted during operation of the Gas Turbine at a heat input rate within 95-100% of the maximum capacity achievable for the average ambient temperature during the compliance tests (or at a heat input rate between 90-100% of the maximum permitted heat input rate of 456 MMBtu per hour (HHV) at 49.9 MW) and operation of the Heat Recovery Steam Generator at a heat input rate within 90 to 100% of the maximum permitted rate of 104 MMBTU per hour. The turbine manufacturer's capacity vs. ambient temperature curve shall be included with the test report. A compliance test submitted at operating rates less than those specified above will automatically constitute an amended permit at the lesser rates until another test showing compliance at higher rates is submitted. Failure to submit the operating (heat input) rates or operation at conditions that do not represent normal operating conditions may invalidate the test. [Rule 62-4.070(3), F.A.C.]

As a result, the permit will be issued, as noticed, with the changes discussed, above.

### 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.
 0810007-011-AC

 Project
 New Gas Turbine

 SIC No.
 2033, 2037, 2048

 Expires:
 December 31, 2004

### Authorized Representative:

Michael Haycock, Vice President, Mfg.

### **PROJECT AND LOCATION**

This permit authorizes Tropicana Products, Inc. to install a new General Electric Model LM 6000 gas turbine.

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

### SECTION I. FACILITY INFORMATION

### FACILITY AND PROJECT DESCRIPTION

The facility is an existing citrus juice processing facility. The project is the installation of a new General Electric Model LM 6000 gas turbine to replace an existing General Electric Model LM 5000 gas turbine (Emissions Unit I.D. No. –016). The existing Heat Recovery Steam Generator (HRSG) will be utilized with the new turbine, without modification. The applicant did not seek any relaxation in currently enforceable conditions for its existing emissions units.

The annual potential emissions associated with this project in tons per year are approximately: PM/PM<sub>10</sub>, 8.4; CO, 91.0; NO<sub>X</sub>, 35.6; SO<sub>2</sub>, 4.8; and VOC, 1.7. The facility information, project scope, emissions and rule applicability are described in detail in the Department's <u>Technical Evaluation and</u> Determination.

### REVIEWING AND PROCESS SCHEDULE

August 29, 2002	Received permit application (no application fee required)
August 29, 2002	Application complete
September 12, 2002	Distributed Notice of Intent to Issue and supporting documents
September 27, 2002	Notice of Intent published in the Bradenton Herald

#### 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**

- 1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, phone number 850/488-0114. All documents related to reports, tests, minor modifications and notifications shall be submitted to the Department's 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 is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- 3. <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. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
- 5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
- 6. Expiration: This air construction permit shall expire on December 31, 2004. 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. Plant Operation Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's 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 026, 003) as specified below. These provisions cannot be used to vary any NSPS requirements applicable to this emissions unit.
  - (a) Excess emissions resulting from start-up and shutdown are permitted for emissions unit 026 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 resulting from malfunction of this emissions unit shall be 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 unless specifically authorized by the Department for longer duration.
  - (c) 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.

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

#### SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

### 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 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

-026 New Gas Turbine/Existing HRSG at Cogeneration Plant

The natural gas fired General Electric (GE) LM 6000 gas turbine (GT), equipped with NO<sub>X</sub> control, has a maximum design heat input capacity of 456 MMBtu per hour (HHV) at 49.9 megawatts (MW), and a natural gas fired Heat Recovery Steam Generator (HRSG) with a maximum design heat input capacity of 104 MMBtu per hour. The cogeneration project has an electric generation capacity of 49.9 MW.

{Permitting note(s): This emission unit is regulated under NSPS - 40 CFR 60 Subpart GG - Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Based on the heat input capacity of the turbine and the fact that it is not an electric utility stationary gas turbine, the nitrogen oxides standards of 40 CFR 60 Subpart GG do not apply to this source. The HRSG is subject to NSPS - 40 CFR 60 Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted and incorporated by reference in Rule 62-204.800, F.A.C. 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 Sources.}

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

### Essential Potential to Emit (PTE) Parameters

- 1. Capacity.
  - a. The maximum heat input to the Gas Turbine shall not exceed 456 MMBtu per hour (HHV) at 49.9 MW. Electrical power from the gas turbine shall be limited to 49.9 MW on an hourly basis.
  - b. The maximum heat input to the Heat Recovery Steam Generator shall not exceed 104 MMBtu per hour (99 MCF/hr of natural gas).
  - c. Heat input to the Heat Recovery Steam Generator shall not exceed 91 MMBtu per hour on a 30 day rolling average basis.
  - [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; AC41-157745; and, Applicant request dated 8/27/02]
- 2. Methods of Operation (i.e., Fuels) The Gas Turbine/Heat Recovery Steam Generator shall fire natural gas only. The sulfur content of the fuel (natural gas) used in the Gas Turbine shall not exceed one grain sulfur per 100 cubic feet. [Rules 62-4.160(2), 62-204.800(7)(b)39, and 62-213.440(1), F.A.C.; AC41-157745; and, Applicant request dated 8/27/02]

### **Emission Limitations and Standards**

3. Visible emissions from the Gas Turbine and Heat Recovery Steam Generator shall not exceed 10% opacity. Testing for this limit shall be conducted upon initial operation and annually thereafter. [AC41-157745 and Applicant request dated 8/27/02]

### SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- 4. Carbon monoxide (CO) emissions shall not exceed the following:
  - a. 30 ppmvd (corrected to 15% O<sub>2</sub>), for the Gas Turbine. Testing for this pollutant shall be conducted upon initial operation, only.
  - b. 0.14 pounds/MMBtu for the Heat Recovery Steam Generator. [BACT Determination of May 29, 1989 and Applicant request dated 8/27/02]
- 5. Nitrogen oxides (NOx) emissions shall not exceed the following:
  - a. 25 ppmvd (corrected to 15% O<sub>2</sub>), for the Gas Turbine. Testing for this pollutant shall be conducted upon initial operation and annually thereafter.
  - b. 0.1 pounds/MMBtu for the Heat Recovery Steam Generator.<sup>1</sup> [BACT Determination of May 29, 1989, in accordance with Rule 62-212.400, F.A.C. and Applicant request dated 8/27/02]

{¹Permitting Note: Compliance with this BACT limit will also satisfy the less stringent requirements of Subpart Db - 40 CFR 60.44b(a)(4)(i), which specifies a NOx limit of 0.2 lb/MMBtu for duct burners used in a combined cycle system.}

6. Emissions from the Heat Recovery Steam Generator shall not exceed any of the following:

	Heat Recovery Steam Generator		
Pollutant	Pounds per Hour <sup>1</sup>	Tons per Year <sup>1</sup>	
NOx	10.4	39.9	
СО	14.56	55.8	
PM/PM <sub>10</sub>	1.04	4.0	
SO <sub>2</sub>	0.29	0.60	
VOC	4.16	15.9	

<sup>1</sup>Note: Heat Recovery Steam Generator pounds per hour emissions are based on 104 MMBtu/hr maximum heat input rate, while the tons/yr emissions are based on the 91 MMBtu/hr maximum 30 day rolling average heat input rate. [Air Construction Permit 0810007-009-AC]

### SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

### **Test Methods and Procedures**

- 7. Test the Heat Recovery Steam Generator for emissions of the following pollutants annually on or during the 60-day period prior to March 1.
  - a. Visible emissions (VE)
  - b. Nitrogen Oxides (NOx)
  - c. Sulfur Dioxide (SO<sub>2</sub>)

[Air Construction Permit AC41-157745/PSD-FL-136]

{Permitting Notes: (1) A fuel analysis, including sulfur content, of a representative fuel sample and a calculation of the sulfur dioxide emission rate based on the fuel analysis may be submitted in lieu of the required sulfur oxides emission test. (2) Although CO, PM, and VOC are limited in Condition6, above, the referenced construction permit specified that testing for these pollutants shall be conducted upon initial operation only. (3) The compliance test due date is for planning purposes only. Rule 62-297.310(7)(a)4, F.A.C., allows the permittee to conduct a formal compliance test any time during the federal fiscal year (October 1 – September 30).}

- 8. Compliance with the emission limitations of Conditions 3 through 6, of this section, shall be determined using the following EPA Methods contained in 40 CFR 60, Appendix A and adopted by reference in Chapter 62-297, F.A.C.
  - a. EPA Method 5, 5B, or 17 for PM
  - b. EPA Method 201 or 201A for PM<sub>10</sub> (recommended)
  - c. EPA Method 7/20 or 7E for NOx
  - d. EPA Method 9 for VE
  - e. EPA Method 10 for CO
  - f. EPA Method 18 or 25A for VOC

The minimum requirements for stationary point source emission test procedures and reporting shall be in accordance with 40 CFR 60 Appendix A and Chapter 62-297, F.A.C. [Chapter 62-297, F.A.C.; Air Construction Permit AC41-157745]

- 9. The visible emissions tests shall be conducted by a certified observer and be a minimum of sixty (60) minutes in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. [Rule 62-297.310(4)(a), F.A.C.]
- 10. Testing of emissions must be conducted during operation of the Gas Turbine at a heat input rate within 95-100% of the maximum capacity achievable for the average ambient temperature during the compliance tests (or at a heat input rate between 90-100% of the maximum permitted heat input rate of 456 MMBtu per hour (HHV) at 49.9 MW) and operation of the Heat Recovery Steam Generator at a heat input rate within 90 to 100% of the maximum permitted rate of 104 MMBTU per hour. The turbine manufacturer's capacity vs. ambient temperature curve shall be included with the test report. A compliance test submitted at operating rates less than those specified above will automatically constitute an amended permit at the lesser rates until another test showing compliance at higher rates is submitted. Failure to submit the operating (heat input) rates or operation at conditions that do not represent normal operating conditions may invalidate the test. [Rule 62-4.070(3), F.A.C.]

#### SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

### **Operating Conditions**

11. The sale of electrical output generated by the Gas Turbine/Heat Recovery Steam Generator unit shall not exceed one third (33.3%) of the total annual electrical output based on a 12 month rolling average. (This limitation is necessary to insure that this source (emission unit) is not considered an electric utility gas turbine under Subpart GG - 40 CFR 60.331(q).) [Rule 62-204.800(7)(b)39, F.A.C.; 40 CFR 60.331(q)]

### Monitoring, Recordkeeping and Reporting Requirements

- 12. In order to document compliance with the limitations of Conditions 2 and 6, of this section, the permittee shall maintain records of the sulfur content in the natural gas as supplied by the pipeline company. The Department may require the permittee to independently verify the sulfur content of the natural gas whenever the Department does not have reasonable assurance that the sulfur content information provided by the natural gas supplier accurately represents the sulfur content in the natural gas combusted in this source (emission unit). Compliance with the sulfur content standards shall be in accordance with the requirements of Subpart GG 40 CFR 60.335(d). Proof of compliance with the annual SO<sub>2</sub> limitation (including calculations) shall be submitted along with the annual operating report each year. [Air Construction Permit AC41-159485 as amended May 20, 1992; Rule 62-204.800(7)(b)39, F.A.C.; 40 CFR 60.335(d)]
- 13. The permittee shall keep records of total electrical generation output and electrical output sold such that compliance with Condition 11, above, can be determined. [Rule 62-213.440, F.A.C.]
- 14. The permittee shall submit quarterly SO<sub>2</sub> excess emission reports in accordance with 40 CFR 60.7(c) and Subpart GG 40 CFR 60.334(c)(2). If there are no excess emissions during a calendar quarter the permittee shall submit a report stating that no excess emissions occurred during the reporting period. [Rule 62-204.800(7)(b)39, F.A.C.; 40 CFR 60.334(c)(2)]
- 15. All reports required by 40 CFR 60 shall be submitted to the Air Compliance Sections of the MCEMD and Southwest District Office of the Department. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. [Rule 62-213.440, F.A.C.]

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

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

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

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

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

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

### Memorandum

## Florida Department of **Environmental Protection**

TO:

THRU:

Scott Sheplak Bris app 10/16

FROM:

Edward Svec

DATE:

October 14, 2002

SUBJECT:

Tropicana Products, Inc.

New Gas Turbine

DEP File No: 0810007-011-AC

Attached for approval and signature is a final air construction permit for Tropicana Products, Inc., Bradenton Plant. The permit allows the installation of a new gas turbine as a replacement for their existing turbine. The applicant did not seek any relaxation in currently enforceable conditions in its other existing emissions units.

Comments were received during the public comment period from Tropicana correcting some transcription errors and were addressed to their satisfaction.

I recommend your approval and signature.

December 11, 2002 is day 90.

SMS/es Attachments Post Actual to Future Potential does not trigger PSD. al