Florida Department of
Environmental Protection

Memorandum

TO: Clair Fancy, Chief - Bureau of Air Regulation

THROUGH: Al Linero, Administrator - New Source Review Section aal 11/13

FROM: Jeff Koerner, New Source Review Section JK

DATE: November 13, 2001

SUBJECT: Minor Modification – Dryer Bypass Stack Operation
Tropicana Products, Inc. - Fort Pierce Citrus Processing Plant
Project No. 1110004-005-AC
Draft Air Permit No. PSD-FL-303B

Attached for your review are the following items:

- Intent to Issue Permit and Public Notice Package;
- Technical Evaluation and Preliminary Determination;
- Draft Letter Modification; and
- PE Certification

The applicant requested removal of a permit condition to monitor the dryer bypass stack on a daily basis. The draft letter modification removes the daily monitoring requirement, but requires dryer bypass stack monitoring during the annual emissions tests to ensure that the maximum pollutant emissions are being measured. Day #74 is November 30, 2001. I recommend your approval of the attached draft letter modification for this project.

CHF/AAL/jfk

Attachments

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

P.E. CERTIFICATION STATEMENT

PERMITTEE

Tropicana Products, Inc.
Fort Pierce Citrus Processing Plant
6500 Glades Cutoff Road
Fort Pierce, FL 34981

Project No. 1110004-005-AC
Draft Permit No. PSD-FL-303B
Dryer Bypass Stack Monitoring

PROJECT DESCRIPTION

Tropicana Products, Inc. operates a citrus processing plant (SIC No. 2037) at 6500 Glades Cutoff Road in Fort Pierce, Florida. Previously, the Department issued a PSD air permit to construct additional citrus juice extractors at the existing facility, which included a condition to monitor the dryer bypass stack on a daily basis. The applicant requests removal of this requirement because it is burdensome and operation of the bypass stack is unlikely to result in particulate matter emissions in excess of the process weight table. The Department proposes a revised condition that only requires monitoring of the dryer bypass stack during required annual emissions stack tests to ensure that the maximum pollutant emissions are being measured. Because this change is not expected to result in increased actual emissions, PSD review does not apply.

I HEREBY CERTIFY *that the air pollution control 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).*

Jeffery J. Koerner

Jeffery F. Koerner, P.E.
Registration Number: 49441

11-13-01

(Date)

RECEIVED
SEP 17 2001
BUREAU OF AIR REGULATION

Tropicana®

VIA CERTIFIED MAIL- RETURNED RECEIPT REQUESTED

September 13, 2001

Mr. C.H. Fancy, P.E., Chief
Bureau of Air Regulation
FL Dept. of Environmental Protection
2600 Blair Stone Road, Mail Station 5505
Tallahassee, FL 32399-2400

ATTN: Mr. Joseph Kahn, P.E., New Source Review Section

RE: File No. 1110004-003-AC, PSD-FL-303
Tropicana Products Permit Condition Change Request

Dear Mr. Kahn:

Enclosed please find four copies of the permit modification application that Ken Kosky from Golder Associates has previously discussed with you. The application requests the elimination of Condition III.9. of Construction Permit No. 1110004-003-AC; PSD FL-303.

If you have any questions or need additional information, I can be contacted at 561-465-2030 ext-443.

Sincerely

Scott Davis

Scott Davis
Manager, Environmental Operations
Tropicana Products, Inc., Fort Pierce Facility

CC: Doug Foster, Tropicana Products, Inc.
J. Koogler, SED
Q. Bengal, NPS
B. Wadley, EPA

Tropicana Products, Inc. 6500 Glades Cut-Off Road, Ft. Pierce, Florida 34981
561-465-2030 Fax 561-465-2855

Golder Associates Inc.

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

August 14, 2001

0137568

Mr. C. H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Attention: Mr. Joseph Kahn, P.E., New Source Review Section

RE: TROPICANA PRODUCTS, INC., FORT PIERCE CITRUS PROCESSING PLANT
DEP FILE NO. 1110004-003-AC (PSD-FL-303) 1110004-005-AC

Dear Joe:

This correspondence is submitted on behalf of Tropicana Products, Inc. to request a change in a permit condition related to the citrus feed mill peel dryers and waste heat evaporators. Specifically, it is requested that Section III. Condition 9. requiring records for the operation of the dryer bypass stacks to be omitted from the permit.

The bypass stack is a misnomer. The purpose of the stack is for pressure relief in the waste heat evaporator. For the Fort Pierce Plant, these pressure relief stacks operate intermittently and at generally low flow (10 percent or less of the dryer flow). The relief stack is necessary to balance the airflow between the dryer and the waste heat evaporator. Excessive pressure can damage the dryer.

The intermittent small amount of emissions are not in excess of the applicable emission limit and therefore not excess emissions as defined in Rule 62-210.200 F.A.C. and provided for in Rule 62-210.700 F.A.C. An excess emission, as defined in the Department's rules, must be in excess of any applicable Department rule. Any emission from the relief stack, either separate from or combined with the emissions from the waste heat evaporator would not exceed an applicable Department rule. This includes visible emissions and the process weight table.

This conclusion has been confirmed through testing performed at the Bradenton Citrus Processing Plant. One particular dryer at the Bradenton Plant has pressure relief problems where dryer exhaust gases of over 30 percent of the dryer flow exits the relief stack and occurs over extended periods. This has necessitated testing of both the relief stack and the waste heat evaporator stack. Testing of this dryer (Dryer No. 2) has confirmed particulate matter (PM) emissions from the relief stack in the range of 5 to 10 pounds per hour (lb/hr) for over 30 percent of the flow. When combined with the PM emissions from the waste heat evaporator the total emissions are about one-third of the applicable process weight limit. Even if all the flow were out of the pressure relief stack, the process weight limit would not be exceeded.

At the Fort Pierce Plant, the pressure relief stack does not operate as often or at the flow rates experienced at Bradenton's Dryer No. 2. As shown in the PSD Application for the juice extractors, the actual PM emissions for 1998 and 1999 from both dryers at Fort Pierce were 5.3 lb/hr for both dryers compared to the process weight limit of 32.4 lb/hr (refer to Table 2-4). For 2000 and 2001, the

average PM emissions, for both dryers, were 3.94 lb/hr. Given the low actual emissions from the waste heat evaporators, the low flow to the relief stack and similarity in dryer capacity and process, it can be concluded that there would not be an excess emission in the event some of the dryer flow exhausts through the relief stack. Therefore, Condition III. 9. is not necessary.

Moreover, there is currently no physical way to record the operational hours when flow exhausts through the relief stack. The system is balanced by the flows of the dryer forced draft fans and the waste heat evaporator induced fans. There is no electronic control system that could be used to monitor or record a condition when the relief stack is used.

The opportunity to provide this request is appreciated. Please call if you have any questions.

Sincerely,

GOLDER ASSOCIATES INC.

Kennard F. Kosky, P.E.
Principal

KFK/jkw

cc: Richard Coyle, Tropicana Products, Inc.
Douglas Foster, Tropicana Products, Inc.
Scott Davis, Tropicana Products, Inc.

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