Title V Air Operation Permit Renewal
Permit No. 1050001-012-AV

APPLICANT

The applicant for this project is Citrosuco North America, Inc. The applicant's responsible official and mailing address are: Nicholas Emanuel, President, Citrosuco North America, Inc., 5937 Hwy 60 East, Lake Wales, FL 33898.

FACILITY DESCRIPTION

The applicant operates the Citrosuco North America facility, which is located at 5937 Hwy 60 East, Lake Wales, Florida.

This facility processes up to 32,000,000 boxes of citrus into various citrus products and animal feed. This facility consists of two citrus peel dryers connected to three waste heat evaporators, two citrus peel pellet coolers, four boilers (three boilers are regulated emissions units and one is an insignificant emissions unit), two emergency stationary diesel engines, and process equipment (which include fruit washers, oil and juice extraction equipment, cooling towers, fruit and peel conveyance equipment, lime silo, and peel storage).

The two (2) 60,000 pounds per hour (water removal rate) pressed citrus peel dryers (Citrus Peel Dryer Nos. 2 and 3) each have a maximum input rate of 50.0 tons per hour of pressed peel (including water). Each peel dryer has a maximum heat input rate of 93.6 million Btu per hour. The exhaust gases from the peel dryers are sent to the 60,000 pounds/hour, 120,000 pounds/hour, or 100,000 pounds/hour (water removal capacity) waste heat evaporators, which function as indirect heat exchangers to drive moisture from the press liquor (from the horizontal peel presses). The waste heat evaporators also reduce particulate matter emissions. Each peel dryer can be connected to any of the three waste heat evaporators.

The two citrus peel pellet coolers (Pellet Coolers Nos. 2 and 3) each have a maximum rated capacity of 24.0 tons per hour. Dried citrus peel from peel dryers is sent to the pellet mill where molasses is added and pellets formed for use as an animal feed supplement. Pellets are then sent to the pellet coolers. Cyclone dust collectors (8,000 acfm each) are used to return any suspended product to the mill for reprocessing.

The high efficiency 800 Horsepower Boiler is a Johnston 509 steam boiler with a maximum heat input of 31.0 million Btu per hour. The boiler was placed into service January 1, 1985.

The 2,000 Horsepower Boiler is a Johnston 509 steam boiler with a maximum heat input of 84.35 million Btu per hour. The boiler was placed into service March 15, 2000.

The 1,000 Horsepower Boiler is a Johnston 509 steam boiler with a maximum heat input of 38.5 million Btu per hour. The boiler was placed into service January 1, 2002.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility and to incorporate the changes proposed in construction permit 1050001-013-AC.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Initial (after Citrus Statute repermitting) Title V Air Operation Permit issued October 11, 2006

Application for a Title V Air Operation Permit Renewal received February 21, 2011

Additional Information Request dated March 10, 2011

Additional Information Response received May 12, 2011

Notice of Intent to Issue Air Permit issued ***TBD***

Public Notice Published ***TBD***

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is not identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility does operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility**.** The citrus peel dryers include integral waste heat evaporators with water spray heads whose purpose is to keep the heat transfer surfaces clean; in doing so it also reduces particulate matter. Since the waste heat evaporators are integral to the operation of the citrus peel dryers, they are not considered control devices. The citrus pellet coolers have cyclones to return product to the process and may not be considered control devices; also, the uncontrolled emissions of PM/PM_{10} are below major. The four boilers do not employ control devices to meet their emissions standards.

PROJECT REVIEW

The following changes were made as part of this renewal:

Permit was written using the new Tallahassee Title V template.

Permit incorporates the changes proposed in project 1050001-013-AC (move the regulated 125 HP Boiler to the insignificant source category; replace individual maximum heat input limitations for 800 HP Boiler, 2000 HP Boiler, and 1000 HP Boiler with a combined maximum heat input limitation of 153.85 mmBtu/hr; reduce particulate matter emissions testing frequency for Pellet Coolers 2 and 3 from annually to once per permit period; eliminate the PM/PM_{10} recordkeeping required for the two pellet coolers; and modify the method of operation for the two dryers and three boilers by specifying that the No. 2 distillate fuel oil can only be burned during periods of gas curtailment).

In Facility-Wide Condition "VOC Emission Limits and Oil Recovery", the value for K1, which is used in oil recovery calculations, was changed from 0.65 to 0.72 since the facility is required to achieve at least a 72% recovery of oil from citrus fruits.

New Emissions Unit 015 was added for the two existing emergency stationary CI RICE diesel engines. These engines are subject to NESHAP 40 CFR 63, Subpart ZZZZ.

Language was added to specify operation during testing for the two citrus peel dryers since they are served by three waste heat evaporators.

CONCLUSION

This project renews Title V air operation permit 1050001-011-AV, which was issued on October 11, 2006. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.