

Prevention of Significant Air Quality Deterioration Review  
Packaging Corporation of America Pulp & Paper Mill,  
located in Clyattville, Georgia (Lowndes County)

## **FINAL DETERMINATION**

Application No. 15946

August 2005



State of Georgia  
Department of Natural Resources  
Environmental Protection Division

Ron Methier – Chief, Air Protection Branch

Stationary Source Permitting Program

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## BACKGROUND

On January 7, 2005, Packaging Corporation of America Pulp and Paper Mill (PCA Mill) submitted an application for an air quality permit to modify, construct, and operate equipment at their Clyattville, Georgia mill. The proposed project includes the modification of the No.3 Brown Stock Washer System (Source Code: G016, re-designated as No. 3A washer) and installation of vent collection equipment to route vent gases to the existing HVLC system for destruction to meet compliance with 40 CFR 63 Subpart S (Phase II) and various improvements to the Paper Machine System (Source Code: G014) to improve product quality and energy efficiency

On June 28, 2005, the Division issued a Preliminary Determination stating that the proposed projects should be approved. The Preliminary Determination contained a draft Air Quality Permit for the construction and operation of the projects.

The Division requested that the PCA Mill place a public notice in a newspaper of general circulation in the area of the existing facility notifying the public of the proposed construction and providing the opportunity for written public comment. Such public notice was placed in *The Valdosta Daily Times* (legal organ for Lowndes County) on July 8, 2005.

During the comment period, comments were received from U.S. EPA Region 4 and the facility. There were no written comments received from the general public.

A copy of the final permit amendment is included in Appendix A. A copy of written comments received during the public comment period is provided in Appendix B.

## PACKAGING CORPORATION OF AMERICA COMMENTS

Comments were received from Virginia Holton, the Environmental Manager at the facility, on August 5, 2005.

### Comments received from Packaging Corporation of America dated August, 5, 2005

*Comment 1: Continuous Monitoring Systems (CMS) requirements for the black liquor firing rate and the calcium oxide production rate*

PCA states that the requirement in Condition 5.2.3.b.ii and 5.2.3.d.v requires a CMS for the calcium oxide production rate for the No.4 Lime Kiln and the black liquor solids firing rate for the Nos. 1, 2, and 3 Recovery Furnaces, respectively. PCA states that 40 CFR 63 Subpart MM does not require continuous monitoring of these parameters, only daily recordkeeping. PCA requested that conditions 5.2.3.b.ii and 5.2.3.d.v be removed from the permit amendment.

*EPD Response:*

EPD agrees with PCA and draft Conditions 5.2.3.b.ii and 5.2.3.d.v. were removed from the final permit. The recordkeeping requirements are in the permit as Condition 6.2.23.b for lime production from the No. 4 Lime Kiln and Condition 6.2.23.a for black liquor firing rate in the Nos. 1, 2, and 3 Recovery Furnaces. No other changes were made to the permit due to this comment.

*Comment 2: Establishing the Minimum Operating Temperature in the NCG Thermal Oxidizer (Source Code 6077)*

PCA requested a slight wording change to set the minimum operating temperature for the NCG thermal oxidizer because the current language is not indicative of the typical operation of the thermal oxidizer. The most common operation of the thermal oxidizer is with the HVLC gases combusted in the powerhouse and only the LVHC and stripper off gases (SOG) in the incinerator. Rather than potentially raise the minimum temperature all the time, including the most common operating scenario, which is unaffected by the addition of more HVLC gases from 3A washer, PCA proposed the following wording change:

Condition 3.3.23	“...or above the temperature established in Condition 4.2.18 for the additional gases from the No. 4 Chemiwasher System (Source Code: G039) and No. 3A Brown Stock Washer System (Source Code: G016), <del>whichever is greater</del> <b>whenever burning HVLC gases</b> , or shall combust ...”
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*EPD Response:*

The Division agrees with the facility and the appropriate changes were made to the permit. To record for the Division when the HVLC gases are combusted in Thermal Oxidizer (Source Code 6076), Condition 6.2.2 was split into two sections 6.2.2.a and 6.2.2.b. Condition 6.2.2.a contains the original Condition 6.2.2 language, and Condition 6.2.2.b requires the facility to keep the hours of operation when the thermal oxidizer is being used as the control device for the No. 4 Chemiwasher System (Source Code: G039) and No. 3A Brown Stock Washer System (Source Code: G016).

*Comment 3: Language Clarification in Condition 6.2.23.c*

PCA requested that the phrase "...any period..." be used in Condition 6.2.23.c instead of the phrase "...any time...". The regulatory language reference the applicable averaging periods and of the monitored parameters, while the proposed limit could be interpreted to be a much shorter time.

*EPD Response:*

EPD agrees with PCA and the appropriate changes were made to Condition 6.2.23.c.

**U.S. EPA REGION 4 COMMENTS**

Comments were received from Jim Little, U.S. EPA Region 4, by email on July 22, 2005. Jim Little discussed these comments in phone conversations with David Matos, GA EPD, prior to emailing them in written form. Mr. Little reviews PSD permits for completeness and enforceability. No comments were received from the U.S. EPA Region 4 Title V review program.

**Comments received from U.S. EPA on July 22, 2005***Comment 1: No. 3 Brown Stock Washer BACT Analysis*

The No. 3 Brown Stock Washer was evaluated as part of the BACT determination for VOC and TRS emissions, even though both the application and the preliminary determination state that the washer will decrease in emissions. A BACT assessment is not required for emissions units unless the unit is anticipating an increase in emissions of pollutants subject to BACT.

*EPD Response:*

EPD agrees that the BACT analysis was not necessary for the No. 3 Brown Stock Washer due to the decrease in emissions from this unit. No changes were made to the permit due to this comment.

*Comment 2: Contemporaneous Period*

The application and the preliminary determination define the contemporaneous period for the netting analysis to be the period of commencement of construction (October 2005) to the date

five years prior to commencement (October 2000). EPA also mentions that the contemporaneous period also extends to the date that the increase in emissions from the changes occurs.

*EPD Response:*

EPD agrees that the contemporaneous period is the period of time from the commencement of construction (October 2005) back five years (October 2000) plus the period of time until the increase in emission occurs.

*Comment 3: Ozone Preconstruction Monitoring*

Due to the proposed increase in VOC emissions exceeding 100 tons per year, the preliminary determination should address the ozone preconstruction monitoring.

*EPD Response:*

Emissions of VOC from the proposed Brownstock Washer project are estimated to be 142.5 tons per year and include emissions from contemporaneous projects. As part of the PSD permit application (Section 7.6.2.4), a semi-quantitative assessment of the impact that VOC emissions would have on ozone levels surrounding the Valdosta Mill was conducted. The semi-quantitative analysis incorporated the approach developed by Mr. Richard Scheffe for U.S. EPA's Office of Air Quality Planning and Standards (OAQPS) Source Receptor Analysis Branch in September 1988. The Scheffe analysis indicated that very low levels of ozone (less than 15% of the 1-hour standard) could be expected due to the project related VOC emissions. Based on the Scheffe analysis, the Valdosta Mill believes that ozone ambient air monitoring is not warranted.

To provide additional support to the position that ambient air ozone monitoring is not necessary, the Valdosta Mill reviewed the existing ambient air ozone monitoring network for the region. It was determined that there are four ambient ozone monitoring sites located within distances between 87 and 104 kilometers (54 and 65 miles) of the Valdosta Mill. The four monitoring sites are located to the southeast and southwest of the Mill in three Florida counties and, based on a review of the local wind patterns, are collectively downwind of the Mill 46.5% of the time (based on the 1982-1986 wind distribution data for Tallahassee, Florida). The ozone monitoring data from the four sites show that the region is in attainment with the 8-hour ozone standard as well as the former 1-hour standard. Based on the proximity of the ozone monitoring sites to the Mill, the regional nature of ozone (i.e., the emission of ozone precursors react to form ozone downwind of the emission point), and the fact that acceptable levels of ozone are present, it does not appear that conducting an additional ambient air ozone monitoring program in the area as part of the Brownstock Washer project is necessary or warranted.

## **EPD CHANGES**

Conditions in this amendment have been renumbered as needed due to the addition or deletion of

requirements based on facility and U.S. EPA comments. The condition numbers listed in the Emissions Unit table have also been updated as necessary.

The following conditions were modified following the comment period.

3.3.23 The Permittee shall maintain a minimum temperature in the NCG Thermal Oxidizer (Source Code 6076) whenever combusting SOG, LVHC, and/or HVLC gases, at or above 1229°F (the temperature demonstrated to meet the requirements of 40 CFR 63.443(d)(1) and 63.443(d)(2) during the initial performance testing required by Condition 4.2.3), or above the temperature established in Condition 4.2.18 for the additional gases from the No. 4 Chemiwasher System (Source Code: G039) and No. 3A Brown Stock Washer System (Source Code: G016), whenever burning HVLC gases, or shall combust the HVLC, LVHC, and/or SOG gases in a lime kiln or boiler per 40 CFR 63.443(d)(4).

6.2.2 The Permittee shall maintain the following records:

- a. The hours of operation during which the Combination Boilers (Source Codes 1005 & 1006) are used as control devices for the NCG system, [40 CFR 52.21 Avoidance and 391-3-1-.02(6)(b)1]
- b. The hours of operation during which the Thermal Oxidizer (Source Code 6076) is used as the control device for the HVLC gases from the No. 4 Chemiwasher System (Source Code: G039) and the No. 3A Brown Stock Washer (Source Code: G016). [391-3-1-.02(6)(b)1]

**APPENDIX A**

**AIR QUALITY PERMIT**

**2631-185-0001-V-01-6**

**APPENDIX B**

**WRITTEN COMMENTS  
RECEIVED DURING  
COMMENT PERIOD**