New Source Review of
the Williams Printing Company facility,
located in East Point, Georgia (Fulton County)

FINAL DETERMINATION

SIP Permit Application No. 15473
April 2005

State of Georgia
Department of Natural Resources
Environmental Protection Division
Air Protection Branch

Ron Methier – Chief, Air Protection Branch

Stationary Source Permitting Program

Heather Abrams
Eric Cornwell
Matthew Henderson

BACKGROUND

On July 8, 2004, Williams Printing Company (hereafter "Williams") submitted an application for an air quality permit to construct and operate an offset lithographic printing facility in East Point, Georgia. The facility would be an NSR major source and the application included a LAER-level control technology proposal, a timeline for acquiring emissions offset credits, and the necessary emissions estimates to arrive at an appropriate VOC emission limitation.

On March 17, 2005, the Division issued a Preliminary Determination stating that the above proposed facility, per Application No. 15473, should be approved. The Preliminary Determination contained a draft Air Quality Permit that contained the proper emission limitations and established lowest achievable emission rate (LAER) controls for the proposed facility. LAER was determined to be the use of pollution prevention techniques, which is the use of low VOC inks, fountain solutions, cleaning solvents, etc. combined with thermal oxidation of the VOC emissions from the heatset lithographic printing presses.

The Division requested that Williams place a public notice in a newspaper of general circulation in the area of the existing facility notifying the public of the proposed modification and providing the opportunity for written public comment. Such public notice was placed in the *Fulton County Daily Reporter* (legal organ for Fulton County) on March 18,2005. The public comment period expired on April 18, 2005.

During the comment period, comments were received only from the facility. These comments and the Division's responses are listed on the following pages.

It is the Final Determination of the Division that the construction and operation of the proposed Williams Printing Company facility should be approved.

A copy of the final permit is included in Appendix A.

Addendum

The Public Comment period for Application No. 15473 began March 18, 2005 and ended April 18, 2005. Comments were from the facility were received on March 24, 2005. The comments from the facility, the responses from the Division, and Division changes to the Preliminary Determination are listed below.

Preliminary Determination Comments from Williams Printing

1. Comment

   Review of Applicable Rules and Regulations – Page 3

   A minor revision is required to correct the reference to the Georgia NSR Rules in the State Rules section. The correct citation should be 391-3-1-.03(8).

   Response

   The Division disagrees with this comment. The correct citation for the New Source Review provisions was given in the Preliminary Determination (391-3-1-.03(8)c).

2. Comment

   Review of Applicable Rules and Regulations – Page 4

   Although the inks and coatings to be used on the new presses will meet the VOC content limitations of the paper coating regulations of Georgia Rule 391-3-1-.02(2)(w), it is not clear that both the paper coating and offset lithography regulations of 391-3-1-.02(2)(ddd) should apply to this printing operation. We request clarification on the applicability of Georgia Rule 391-3-1-.02(2)(w).

   Response

   The Division agrees with this comment. After further investigation, the Division has determined that the coating operations using lithography are not subject to Georgia Rule (w) "VOC Emissions From Paper Coating." Rule (w) applies only to roll, knife, rotogravure, and saturation coating, not lithographic coating.

3. Comment

Control Technology Review – Printing operations – Volatile Organic Compounds – Page 6

Please note that the pollution control device that will be installed will be manufactured by Tann Corporation. At the time the permit application was submitted, Tann was doing business under the name of L&E America. The unit to be installed, a Model TR1293C regenerative thermal oxidizer, is the same that was specified in the application, although the nameplate on the oxidizer will identify it as a Tann unit based on the current name of the company.

Response

The Division agrees with this comment. The manufacturer of the thermal oxidizer will be listed as Tann.

4. Comment

Control Technology Review – Printing operations – Volatile Organic Compounds – Page 7

The retention factor for manual cleaning solvent is shown as 40 percent. The information presented in the EPA Guideline Series: Control of Volatile Organic Compounds from Lithographic Printing, September 1993 (Draft) and Alternative Control Techniques Document: Offset Lithographic Printing (EPA 453/R-94-054, June 1994) indicates that a 50 percent retention for cleaning solvent is the appropriate value. See also EPA's recently issued Technical Support Document (TSD) For Title V Permitting Of Printing Facilities (January 2005).

In addition, where references have been made to the vapor pressure of cleaning solvents, we request that the terminology be revised to indicate VOC composite partial vapor pressure, consistent with the EPA documents referenced above.

Response

The Division disagrees with this comment. The Alternative Control Techniques Document: Offset Lithographic Printing (EPA 453/R-94-054, June 1994) uses a 50 percent retention factor for solvents with a composite partial VOC vapor pressure of less than 10 mm Hg. The Division uses guidance from the state of Wisconsin that cites a retention factor of 40 percent for solvents with a composite partial VOC vapor pressure between 10 mm Hg and 25 mm Hg. The Division is relying on the guidance from Wisconsin, since the composite partial VOC vapor pressure of the cleaning solvent given by Williams in its application was between 10 and 25 mm Hg.

5. Comment

Testing and Monitoring Requirements – Testing - Page 13

Although the test methods listed in this section are all appropriate and correctly described, not all of them will be used to demonstrate compliance with the control efficiency as required by the permit. In particular, Methods 24 and 311 are not necessary components of a destruction efficiency test.

In addition, we request that the method for the determination of VOC concentration be revised to specify EPA Method 25A, consistent with the approach presented in EPA's April 4, 1995 guidance, "EPA's VOC Test Methods 25 and 25A" and codified in subpart KK. Per this guidance, Method 25A can be used for determining outlet concentrations when: 1) an exhaust concentration of 50 or less parts per million by volume (ppmv) as carbon (C_1) is required to comply with the applicable standard; 2) the inlet concentration and the required level of control results in an exhaust concentration of 50 or less ppmv as C_1; or 3) the high efficiency of the control device alone results in an exhaust concentration of 50 or less ppmv as C_1. (See http://www.epa.gov/ttn/emc/guidlnd/gd-033.pdf.) In addition, in situations where Method 25 is not viable, such as those described in section 1.1 of Method 25, the use of M25A is allowed on both the inlet and outlet [see 40 CFR 60, Appendix A and 40 CFR § 63.827(d)(1)(vi)]. Based on our high required destruction efficiency and experience with regenerative thermal oxidizer systems, the concentration of VOC in the outlet of the oxidizer will fall below 50 ppm, such that Method 25A is appropriate.

Response

The Division disagrees with the request to remove any of the reference test methods from the list presented in the Preliminary Determination. These tests are not required, but are merely referenced in the Permit and Preliminary Determination in the event that a specific test has to be performed so that the Permittee will be able to find and use the correct methodology to perform the test.

The Division agrees with the request to replace reference test Method 25 with Method 25A.

6. Comment

Testing and Monitoring Requirements – Monitoring - Page 14

We disagree with the need for duct pressure monitoring for the heatset presses. EPA's recent guidance on this issue (Appendix D, Section 2.7 of the Technical Support Document (TSD) For Title V Permitting Of Printing Facilities) states:

As long as the dryer is operated at negative pressure, the capture efficiency for VOC from the heatset lithographic inks and varnishes (coatings) formulated with low volatility ink oils is assumed to be 100 percent of the VOC (ink oils) volatilized in the dryer. Therefore, no VOC capture efficiency testing need be performed. If negative pressure is not maintained in the oven, the resulting emissions into the press room will be visible smoke. Therefore, no continuous monitoring of a capture system parameter is required for this kind of press.

Based on this guidance, we request that the duct monitoring provisions be deleted and that the Heatset Press Dryers section be modified accordingly.

Response

The Division disagrees with this comment. The requirement to install a pressure drop monitor in the duct systems of the heatset dryers was implemented to help ensure that the dryers are maintaining negative pressure when operated. This is not meant to be a requirement to perform a capture efficiency test. The Division accepts the idea that the dryers with capture 100 percent of the VOC volatized within the units.

7. Comment

Explanation of Draft Permit Conditions – Pages 15 and 16

For the reasons given above in our comments on the duct pressure monitoring requirements, we request that the explanation of Condition 5.2 be deleted.

Since Condition 7.10 limits the emissions from the facility to 44.3 tons of VOCs per rolling 12-months, we see no need for a separate monthly emissions limit that is one-twelfth of the annual total. Printing operations are seasonal, based on customer demand. Imposing a monthly limit is unnecessary from a NSR perspective as the rolling 12-month limitation provides for a practically enforceable limitation. A monthly limit of one-twelfth of the annual total would, in fact be a significantly more stringent limitation than the rolling 12-month total. We request this provision be deleted.

Response

The Division disagrees with this comment. The requirement of Condition No. 5.2 to install a pressure drop monitor is being imposed as a means to help ensure that the heatset press dryers will maintain negative pressure and 100 percent capture efficiency. The reportable monthly emission value given in Condition No. 7.10 is not an emission limit. This is simply an indicator that, if the facility continues emitting the indicated pollutant at that quantity or greater, the facility will exceed the 12 month rolling total emission limit imposed in Condition No. 2.1. Williams has indicated that its business is seasonal; therefore, the months that the reportable emission value is exceeded should

be compensated for during months during which production is lower.

Permit Comments from Williams Printing

1. Comment

   Condition 2.4

   As discussed in our comments on the Preliminary Determination, where references have been made to the vapor pressure of cleaning solvents, we request that the terminology be revised to indicate VOC composite partial vapor pressure, consistent with EPA terminology.

   To avoid confusion, we request that the fountain solution VOC content limitation be revised to clearly state this limit is for the as-applied materials. Fountain solutions are purchased in a concentrated form, and then diluted for use on press. Clarification that the limit applies to the as-used material will ensure that the limitation is not inappropriately applied to the fountain solution concentrate.

   As noted in our comments on the Preliminary Determination, we request clarification on the applicability of Georgia Rule 391-3-1-.02(2)(w) and, if appropriate, that references to this regulation be deleted from this and subsequent conditions.

   Response
   The Division agrees with this comment and the Condition has been revised per Williams' request. Condition 2.4 and any subsequent references to vapor pressure will be corrected to refer to VOC composite partial vapor pressure. After further investigation, the Division has determined that the coating operations using lithography are not subject to Georgia Rule (w) "VOC Emissions From Paper Coating." Rule (w) applies only to roll, knife, rotogravure, and saturation coating, not lithographic coating.

2. Comment

   Condition 3.2

   This condition contains a reference to Condition No. 2.4. It appears that the correct reference should be to Condition No. 2.1

   Response
   The Division agrees with this comment and the Condition has been revised per Williams' request.

3. Comment

   Condition 5.1.a

It is unclear what the phrase “at a position prior to any substantial heat loss/exchange” means. We request its deletion from this condition.

Response
The Division disagrees with this comment. The phrase "at a position prior to any substantial heat loss/exchange" refers to placing the temperature monitor at a location that will give an accurate, representative combustion zone temperature reading. No change to the Condition has been made.

4. Comment

Condition 5.2

Consistent with our comments regarding duct pressure monitoring in the Preliminary Determination, we do not believe that continuous monitoring of this parameter is warranted nor will it provide any useful information. We request deletion of this condition.

Response
The Division disagrees with this comment. The heatset press dryers are assumed to have 100 percent capture of VOC emissions originating in them as long as a negative pressure relative to the surrounding press room is maintained within the dryers. The requirement to install a device to monitor pressure drop in the duct system of the heatset press dryers is meant to ensure that the dryers are maintaining a vacuum, and is not a requirement to perform a capture efficiency test, since 100 percent capture efficiency is already assume provided that negative pressure can be demonstrated. No change to the Condition has been made.

5. Comment

Condition 6.3

As noted in our comments on the testing section of the Preliminary Determination, although the test methods listed in this section are all appropriate and correctly described, not all of them will be used to demonstrate compliance with the control efficiency as required by the permit. In particular, Methods 5, 9, 18 and 24 are not necessary components of a destruction efficiency test. In addition, we request that the method for the determination of VOC concentration be revised to specify EPA Method 25A, consistent with the approach presented in EPA guidance.

Response
The test methods listed in Condition No. 6.3 are methods that can be referenced by the facility, and are not required to be performed during the initial performance test. As such, none of the test methods listed in the Condition are being removed. The only changes to the Condition is substituting reference test Method 25 for Method 25A, and replacing Method 18 for Method 311 for the determination of HAP content..

6. Comment

Condition 6.4

This condition requires a compliance test within 60 days after achieving the maximum production rate at which the source will be operated, but no later than 120 days after the initial startup of the regenerative thermal oxidizer. Based on our current schedule, we anticipate the first of the two heatset web offset presses will begin operation with the regenerative thermal oxidizer in place on approximately June 20. The installation of the second heatset web offset press is not scheduled to begin until approximately November 1, with start-up not anticipated until approximately January 1, 2006.

Since the commencement of operation of the second press will fall outside the 120-day testing window included in this condition, we request verification that testing of the regenerative thermal oxidizer with a single press in operation within the specified time period following start-up of the first web press will satisfy the testing requirement of this permit. Should the Air Protection Branch desire a test with both presses in operation, we request that Condition 6.4 be revised to extend to time period for conducting the test so a single test can be conducted in 2006, following the start-up of the second press, to avoid the need to conduct repeat testing on the oxidizer.

Response
The Division disagrees with this comment. The requirement to conduct the performance test is reasonable since one of the heatset presses will be in operation at the required time for testing and is needed to ensure proper operation of the regenerative thermal oxidizer to control VOC emissions from that press. This Condition has been reworded to require testing after achieving maximum production rate on each press or 120 days after the installation of each press. This change in Condition wording has been made to account for the staggered installation of the heatset presses and to ensure that the oxidizer will operate correctly after initial startup and after the addition of the second heatset press.

7. Comment

Condition 7.1

This and several subsequent conditions cite Georgia Rule 391-3-1-.03(10)(d)1(i) as the authority. Since this regulation is for Title V operating permits, we request clarification as to the applicability of the cited requirements to this facility prior to a Title V permit being issued.

Response
The Division agrees with this comment and the citations for Condition Nos. 7.1, 7.2,7.4, and 7.5 have been changed.

8. Comment

Condition 7.3

We see no value in reporting operating hours as part of the information required by this condition and request that Condition 7.3.b be deleted.

Response
The Division disagrees with this comment. The requirement to report operating times of emission units is part of the standard reporting requirements for every major source in Georgia. This Condition has not been changed.

9. Comment

Condition 7.6.c

We agree that reporting periods of operation when the oxidizer temperature is below that required to meet the destruction efficiency is appropriate. However, as noted above, we do not believe duct pressure monitoring is relevant and, therefore, do not believe that the reference to Condition No. 5.2 and the arbitrary pressure level should be included in this condition. Additionally, as there are no HAP emission limits elsewhere in the permit, we question the basis and need for reporting monthly HAP emissions that exceed the listed values. If a HAP reporting requirement is deemed necessary, we would propose that the levels be set at 10 tons per individual HAP and 25 tons total HAP on a rolling 12-month total, similar to the VOC reporting requirements of Condition 7.6.b.i.

Response

The Division disagrees with the request to remove the pressure drop excursion value from Condition No. 7.6(c)iii. This excursion value is in place to ensure that the heatset press dryers are maintaining negative pressure in order ensure 100 percent capture of the VOC emissions from the dryers. That portion of Condition No. 7.6(c)iii has not been changed.

The Division agrees with the request to remove the HAP emission excursion values in Condition No. 7.6(c)i. Since there is no HAP emission limits placed on the facility, as long as the facility does not exceed the major source emission limits for HAP emissions, no excursion reporting values should be imposed. Condition No. 7.6(c)i has been removed.

10. Comment

Condition 7.9

As explained in our comments on the Explanation of Draft Permit Conditions section of the Preliminary Determination above, we disagree with the need for a monthly VOC emissions limitation and any reporting associated with monthly emissions that exceed that value. The requirements of Condition 7.10 address any applicable excess emissions reporting requirements. We request revision of Condition 7.9 to delete the notification requirement.

Response

The Division disagrees with this comment. The notification requirement of Condition No. 7.9 does not contain any emission limitation. The reportable emission value given in that Condition is simply an indicator that, if the facility continues emitting the indicated pollutant at that quantity or greater, the facility will exceed the 12 month rolling total emission limit imposed in Condition No. 2.1. Williams has indicated that its business is seasonal; therefore, the months that the reportable emission value is exceeded should be compensated for during months during which production is lower. No change to the Condition has been made.

11. Comment

Condition 7.11.g

It is unclear what the term "Non-press related VOC emissions" (and "Non-press related HAP emissions" in Condition 7.14.g) refers to. We request deletion of these terms.

Response

The Division disagrees with this comment. The term "Non-press related VOC/HAP emissions" in the equations of Condition Nos. 7.11(g) and 7.14(g) relate to any VOC/HAP emissions not covered in any other Condition in the Permit. These emissions must be accounted for, and the aforementioned phrase in the equations serves that function. No

change to the Condition has been made.

12. Comment

Condition 8.3

In order to maintain production capacity, we will begin installation of equipment at the new location on North Commerce Drive in East Pont and start limited print operations during the period that the current Williams Spring Street facility in Atlanta is shutting down. Therefore, a period of transition will be required during which printing operations will occur at both locations. During the start-up phase of the new location prior to complete closure of the existing facility (late May to early August), emissions from the East Point location are anticipated to be no more than 10 tons of VOC. Since we hold a Certificate of Emission Reduction Credit (ERC-0038-VOC) in the amount of 40 tons of VOC, the emissions credits we have obtained will be more than adequate to offset the emissions form the new facility during start-up. Upon final closure of the operations at the Atlanta location, the additional, documented shutdown credits of 19.5 tons from the historic operation of the Spring Street facility will become available for offseting emissions from the ongoing operation of the East Point facility.

We request that Condition 8.3 be revised to delay the revocation of the Spring Street permit (Georgia Air Quality Permit No. 2752-060-12167) until at least 90 days following the initial start-up of the East Point facility to allow for equipment relocation and start-up during this transitional period. As necessary, we will provide information on emissions and equipment start-ups and shut-downs during this period to document compliance with the conditions of this permit.

Response
The Division agrees with this comment and the Condition has been changed per Williams' request.

Other changes made

Condition 6.3 has been changed to remove Method 18 and incorporate Method 311 for determination of HAP content.

Condition No. 7.15 is added to require notification of the startup of each heatset lithographic printing press.

APPENDIX A

AIR QUALITY PERMIT

2752-121-0680-E-01-0