

Facility ID: 1431320434 Issuance type: Final State Permit To Operate

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In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1431320434 Emissions Unit ID: K001 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|---|---------------------------------------|--|
| K001 - Corrugated containerboard fabrication line | OAC rule 3745-31-05(A)(3) 14-05617 | VOC emissions shall not exceed 57.13 lbs/hr from the application of container board liner coatings. VOC emissions shall not exceed 4.21 lbs/hr and 18.44 tons per year (TPY) from the application of corrugated container board and starch adhesives. VOC emissions shall not exceed 1.04 lbs/hr for knife blade lubricant. See terms A.2.b, A.2.e, A.2.f, and B.2. |
| | OAC rule 3745-31-05(C) | The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). VOC emissions shall not exceed 1.97 TPY, based upon a rolling, 12-month summation from the application of container board liner coatings. VOC emissions shall not exceed 0.99 TPY, based upon a rolling, 12-month summation for knife blade lubricant use. |
| | OAC rule 3745-21-09(F) | See terms A.2.b, A.2.c, A.2.d, and B.1. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of compliance coatings, the use of non-photochemically reactive material for the knife blade lubricant, material usage limits and emission limits.
The VOC content of the container-board liner coatings employed in emissions unit K001 shall not exceed 0.0414 pound VOC per pound substrate liner coating (4.14 % by weight), as applied.
The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units K001 (Paper coating line for corrugated shipping containers), K002 [Sheet-fed flexographic printing press with folder/gluer (PTI 14-4040)], K003 [Sheet-fed flexographic printing press with folder/gluer (PTI 14-4819)], K004 [Post Folder and Gluer (PTI 14-05713)], P002 (Corrugator mixing tank), R002 (Langston flexographic press with folder/gluer), R004 (United rotary press with die cutter) including any de minimus air contaminant sources, as defined in OAC rule 3745-15-05, and any permanent exemption air contaminant sources installed subsequent to the issuance of this permit shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.
The VOC content of the knife blade lubricant shall not exceed of 6.94 pounds of VOC per gallon.
The corrugator line maximum operating rate of 460 MSF per hour and the corresponding pound per

hour and ton per year emissions for the container board and starch adhesive are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly and annual records are required to demonstrate compliance with the corrugated container board limits and starch adhesive limits.

The hourly emission limitations for substrate liner coatings and knife blade coating are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.

B. Operational Restrictions

1. The maximum annual container board liner coating usage for emissions unit K001 shall not exceed 95,000 pounds per year, based upon a rolling, 12-month summation of the coating usage figures.
2. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) for the knife blade lubricant is prohibited.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for emissions unit K001:
 - a. The name and identification number of each container-board liner coating and knife blade lubricant employed;
 - b. The VOC content of each container-board liner coating, by weight, as applied;
 - c. The quantity of the container-board liner coatings employed, in pounds;
 - d. The VOC content of each knife blade lubricant, in percent by weight and pounds per gallon, as applied;
 - e. The quantity of each knife blade lubricant employed, in pounds;
 - f. The total VOC emission rate for all container-board liner coatings employed, in pounds per month [b x c];
 - g. The total VOC emission rate for all knife blade lubricant employed, in pounds per month [d x e];
 - h. The VOC emissions from the application of corrugated container board and starch adhesives as calculated in term E.1.a;
 - i. The updated rolling, 12-month summation of the container-board liner coatings usage, in pounds;
 - j. The updated rolling, 12-month summation of the knife blade lubricant usage, in pounds;
 - k. The updated rolling, 12-month summation of the VOC emissions for the container-board liner coatings, in tons per year; and
 - l. The updated rolling, 12-month summation of the VOC emissions for the knife blade lubricants, in tons per year.
2. The permittee shall collect and record the following information each month for emissions units identified in term A.2.c:
 - a. The name and identification number of each coating (ink and adhesive) employed;
 - b. The individual Hazardous Air Pollutant (HAP)* content for each HAP of each coating (ink and adhesive) in pounds of individual HAP per pound of coating (ink and adhesive), or by percent by weight as applied;
 - c. The total combined HAP content of each coating (ink and adhesive) in pounds of combined HAPs per pound of coating (ink and adhesive), or by percent by weight as applied [sum all the individual HAP contents from (b)];
 - d. The number of pounds of each coating (ink and adhesive) employed;
 - e. The name and identification of each cleanup material employed;
 - f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, or by percent by weight as applied;
 - g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, or by percent by weight as applied [sum all the individual HAP contents from (f)];
 - h. The number of gallons or pounds of each cleanup material employed;
 - i. The total individual HAP emissions for each HAP from all coatings (inks and adhesives) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating (ink and adhesive) plus the sum of (f) times (h) for each cleanup material];
 - j. The total combined HAP emissions from all coatings (inks and adhesives) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating (ink and adhesive) plus the sum of (g) times (h) for each cleanup material];
 - k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
 - l. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.
3. The permittee shall collect and record the following information each month:

- a. The company identification of each liquid organic material employed for the knife blade lubricant in this emissions unit; and
- b. A record of each liquid organic material employed as knife blade lubricant in this emissions unit indicating, whether or not the liquid organic material is photochemically reactive as identified in OAC rule 3745-21-01(C)(5).

D. Reporting Requirements

1. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying coatings as outlined in terms A.2.b and A.2.d. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month. For each exceedance the permittee shall also identify if an exceedance of the applicable VOC emissions limit(s) occurred.

2. The permittee shall submit quarterly deviation reports which identify any exceedance of the HAP emission limitations set forth in term A.2.c. If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

If no exceedances occurred, the permittee shall state so in the report.

3. The permittee shall submit quarterly deviation reports which identify any exceedance of the rolling, 12-month coating usage limitations in term B.1 .

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

If no exceedances occurred, the permittee shall state so in the report.

4. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each day during which any photochemically reactive material [as defined in OAC rule 3745-21-01(C)(5)] was employed as knife blade lubricant in this emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of organic compound emissions emitted each such day. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

5. The permittee shall submit annual reports which summarize the VOC emissions from emissions unit K001 for the previous calendar year. The reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1.of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

VOC emissions shall not exceed 57.13 pounds per hour from the application of container board liner coatings.

Applicable Compliance Method:

The VOC emission rate was based on the following calculation method:

Emissions from container-board liner coatings = A x F

A is the actual weight of coatings employed, in pounds.

F is the actual % by weight VOC content of the coatings, in pounds of VOC/pound of coating.

Permit limit based on 3 pounds of coating/1000 square feet x (1150 square feet/min) x (80 inches width) x 1foot/12inches) x (60 min/hr) x 0.0414 pound of VOC/pound of coating = 57.13 pounds of VOC/hour.

Emission Limitation:

VOC emissions shall not exceed 4.21 pounds of VOC per hour from the application of corrugated container board and starch adhesives.

Emissions from container board and starch adhesive coatings = A x F

A is the actual corrugator operation rate, in square feet/hour.

F is the emission factor for the container board and starch adhesive coating which is 0.00915 pound of VOC/1000 square feet (based upon USEPA Method 25A).

Permit limit based on 460,000 square feet/hour x 0.00915 pound of VOC/1000 square feet (based upon USEPA Method 25A) = 4.21 pounds of VOC/hour.

Emission Limitation:

VOC emissions shall not exceed 1.97 tons per year, based upon a rolling, 12-month summation from the application of container board liner coatings.

VOC emissions shall not exceed 18.44 tons per year from the application of corrugated container board and starch adhesives.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements as specified in Section C.1.

Annual emissions for the starch coatings and corrugated substrate are based on the potential to emit for each material employed.

Emissions from container board liner coatings = $A \times F \times \text{ton}/2000$ pounds.

A is the annual materials employed in pounds.

F is the emissions factor for the coating, in pounds of VOC/pound of coating.

Permit limit is based on $[95,000 \text{ pounds/year} \times 0.0414 \text{ pound of VOC/pound of coating}] \times \text{ton}/2000$ pounds = 1.97 tons of VOC/year.

Emissions from containerboard and starch adhesives = $A \times F \times \text{ton}/2000$ pounds.

A is the actual corrugator operation rate, in square feet/year.

F is the corrugated substrate is 0.00915 pound of VOC/1000 square feet (based upon USEPA Method 25A).

Permit limit, based on data in PTI application 14-05617 received on September 10, 2004, is 4,029,600,000 square feet/yr x 0.00915 pound of VOC/1000 square feet (based upon USEPA Method 25A) x ton/2000pounds = 18.44 tons of VOC/year.

Emission Limitation:

9.9 TPY for any single HAP and 24.9 TPY for combined HAPs per term A.2.c.

Applicable Compliance Method:

Compliance with the HAP emission limitations shall be determined by the record keeping requirements specified in term and condition C.2.

Emission Limitation:

VOC emissions shall not exceed 1.04 pounds per hour for knife blade lubricant.

VOC emissions shall not exceed 0.99 ton per year, based upon a rolling, 12-month summation for knife blade lubricant use.

Applicable Compliance Method:

Compliance with the VOC emission limitations will be determined by the record keeping requirements specified in term and condition C.1.

Permit limit, based on data in PTI application 14-05617 received on September 10, 2004, is 48 gallons of lubricant/month x 6.94 pounds of lubricant/gallon of lubricant x 0.5 pound of VOC per pound of lubricant x month/160 hours = 1.04 pounds of VOC per hour.

48 gallons of lubricant/month x 6.94 pounds of lubricant/gallon of lubricant x 0.5 pound of VOC per pound of lubricant x 12 months/year x ton/2000 pounds = 0.99 ton of VOC per year.

Emission Limitation:

0.0414 pound of VOC/pound of substrate liner coating.

6.94 pound of VOC/gallon of knife blade coating.

Applicable Compliance Method:

USEPA methods 24 and 24A or subsequent amendments to Method(s) 24, 24A developed for water-based coatings, manufacturer's formulation data, or other methods approved by the Ohio EPA shall be used to determine the VOC content for coatings and cleanup materials, respectively. If, pursuant to 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or cleanup material, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or cleanup material to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

Compliance with the VOC content limitations will be determined by the record keeping requirements specified in Section C.1.

2. **Material Usage Limitation:**

95,000 pounds of container-board liner coatings per year.

Applicable Compliance Method:

Compliance with the material usage limitations shall be demonstrated by the record keeping in terms and conditions C.1.

3. **Material Usage Limitation:**

Material usage restricted to non-photochemically reactive materials for knife blade coating.

Applicable Compliance Method:

Compliance with the operational restriction in term and condition B.2 shall be demonstrated by the record keeping as specified in term and condition C.3.

F. **Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: A. through E.

2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary for the HAPs at this facility because the emissions unit's annual emissions for each toxic compound will be limited to less than 1.0 ton. The permittee is hereby advised that if the individual HAPs emissions exceed 1.0 ton per year, the permittee shall notify this agency in writing and shall perform air toxics modeling to demonstrate compliance with the Ohio EPA's Air Toxic Policy.