



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION  
HAMILTON COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

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Lazarus Gov. Center  
P.O. Box 1049

**Application No: 14-04569**

**DATE: 2/26/2002**

Quebecor World Red Bank Division  
Martin Skerritt  
3600 Red Bank Road  
Cincinnati, OH 45227

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA

HCDES



**Permit To Install  
Terms and Conditions**

**Issue Date: 2/26/2002  
Effective Date: 2/26/2002**

**FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 14-04569**

Application Number: 14-04569  
APS Premise Number: 1431070458  
Permit Fee: **\$600**  
Name of Facility: Quebecor World Red Bank Division  
Person to Contact: Martin Skerritt  
Address: 3600 Red Bank Road  
Cincinnati, OH 45227

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**3600 Red Bank Road  
Cincinnati, Ohio**

Description of proposed emissions unit(s):  
**Modifying existing printing presses.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency  


Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

#### 2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio

**Quebecor World Red Bank Division**  
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**Facility ID: 1431070458**

Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit to Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or

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modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

#### 14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

#### 15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

#### B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)**  
**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	98.6
PM	2.2
SO <sub>2</sub>	2.0
NO <sub>x</sub>	22.6
CO	5.6
PM <sub>10</sub>	2.2

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-07(A)
R001 - 8-unit Hantscho HWOPL with thermal oxidizer (modification)	OAC rule 3745-31-05(A)(3)	
	OAC rule 3745-31-05(D)	
	OAC rule 3745-21-07(G)	
	OAC rule 3745-17-11	

Applicable Emissions  
Limitations/Control Measures

Dryer and oxidizer emissions  
combined:

0.3 lb/MMBtu NO<sub>x</sub>,  
22.6 TPY NO<sub>x</sub>\*

0.07 lb/MMBtu CO,  
5.6 TPY CO\*

0.05 lb/MMBtu SO<sub>2</sub>,  
2.0 TPY SO<sub>2</sub>\*

2.2 TPY PM/PM<sub>10</sub>\*

56.1 TPY OC per press

\* For emissions units R001, R002,  
R003, R004, R008 and R009  
combined.

See term and condition A.2.a. and  
A.2.b.

See term and condition A.2.c,  
A.2.d, A.2., A.2.h and B.3.

Exempt, see term B.1.

0.551 lb/hour PM/PM<sub>10</sub>

See term and condition A.2.g.

**2. Additional Terms and Conditions**

- 2.a** Combined organic compound emissions from the oxidizer exhaust of emissions units R001, R002, R003, R004, R008 and R009 shall not exceed 30.37 pounds per hour.

- 2.b** Daily organic compound emissions from each emissions unit R001, R002, R003, R004, R008 and R009 shall not exceed 307.5 pounds per day, which includes the limits of 121.5 pounds per day from the oxidizer exhaust and 186.0 pounds per day from the fugitive emissions associated with the fountain solutions, blanket wash (including rubber revitalizer), metering roller cleaner, and non piling additive.
- 2.c** Annual combined organic compound emissions from all materials employed on emission units R001, R002, R003, R004, R008 and R009 shall not exceed 98.6 tons per year, based on a rolling 12-month summation. The permittee has existing records of the amount of OC emissions.
- 2.d** The following Organic Compound (OC) contents shall not be exceeded for all emission units:
- |    |                         |                 |
|----|-------------------------|-----------------|
| a. | Ink                     | 50% by wt. OC   |
| b. | Adhesives               | 1.0 % by wt. OC |
| c. | Blanket wash            | 100% by wt. OC  |
| d. | Metering Roller Cleaner | 100% by wt. OC  |
| e. | Fountain solution No.1  | 30% by wt. OC   |
| f. | Fountain solution No.2  | 85% by wt. OC   |
| g. | Non piling additive     | 50% by wt. OC   |
- 2.e** The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 90.0 % (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002, R003, R004, R008, and R009.
- 2.f** The hourly and/or daily emission limitation(s) outlined in this permit are based upon the maximum hourly production/application rate at 24 hours per day. Therefore, no hourly and/or daily records are required.
- 2.g** Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004, R008 and R009 shall not exceed 20% percent opacity, as a six-minute average, except as specified by rule.
- 2.h** The emissions of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from this facility 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 determined on a rolling, 12-month summation.

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**2.i** The OC emission limitations in this permit are based on the maximum organic compound content limits in Term A.2.d., the maximum allowable material usage limits in Term B.3., and the thermal oxidizer OC control efficiency in Term A.2.e. In addition, emissions are based on the following assumptions:

Material	<u>% Web Retention</u>	<u>Oven Capture % Efficiency</u>	<u>% Fugitive</u>
Presses R001 - R004, R008, R009			
Ink	20	100	0
Adhesives	0	100	0
Blanket Wash*	0	40	60
Fountain Sol'n	0	70	30
Non-piling Additive	0	70	30

Metering roller cleaner emissions are based on 25% retention in the rags and 75% fugitive emissions.

\* Based on automatic blanket wash.

**B. Operational Restrictions**

1. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.
2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002, R003, R004, R008, and R009 are in operation shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent performance test that demonstrated compliance with the 90.0% overall VOC destruction efficiency requirement.
3. Coating and cleanup material usages for emissions units R001, R002, R003, R004, R008 and R009 combined shall not exceed the following limits:

	Material Usages <u>Lbs/yr**</u>
a. Inks	2,100,000
b. Blanket wash***	120,000

c.	Metering Roller Cleaner	12,000
d.	Fountain solution No. 1*	130,000
e.	Fountain solution No. 2*	16,000
f.	Non Piling Additive	20,000
g.	Adhesives	100,000

\* This usage limit is for the fountain solution concentrate.

\*\* Compliance with the annual usage limitations shall be determined on a rolling, 12-month summation.

\*\*\* Blanket wash includes rubber revitalizer.

4. To ensure an evaporative OC/VOC loss from the hand cleanup process of no more than 50% (by weight) from solvents having a vapor pressure less than 10 mmHg (0.19 psia) at 20 degrees Celsius (68 degrees Fahrenheit), all rags used in the cleanup process shall be stored in closed containers.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for each emissions unit:
  - a. The company identification of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit.
  - b. The percent (%) by weight of the organic compound content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for each emissions unit.
  - c. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit. The amount of material allocated to each emissions unit will be based on the number of impressions made at each emissions unit. Example calculations are referenced in term and condition E.8.
  - d. A record of each liquid organic material employed in each emissions unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
  - e. The total rolling, 12-month summation of the ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, adhesive, and non piling

additive in pounds employed for emissions units R001, R002, R003, R004, R008, and R009.

- f. The total rolling, 12-month summation of the controlled Organic Compound (OC) emissions in tons per year from the inks, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for emissions units R001, R002, R003, R004, R008, and R009.
2. The permittee shall collect and record the following information each month for the entire facility:
    - a. The name and identification number of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive.
    - b. The individual Hazardous Air Pollutant (HAP) content for each HAP of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of individual HAP per pound of concentrated material.
    - c. The total combined HAP content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of combined HAPs per pound of concentrated material [sum all the individual HAP contents from (b)].
    - d. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed, as concentrate.
    - e. The total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d)].
    - f. The total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d)].
    - g. The updated rolling, 12-month summation of the individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons.
    - h. The updated rolling, 12-month summation of the combined HAP emissions for all HAP from all coatings and cleanup materials employed, in pounds or tons.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be

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**Modif**

**Facility ID: 1431070458**

**Emissions Unit ID: R001**

obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when emissions units R001, R002, R003, R004, R008, and R009 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated compliance with the 90.0% overall OC destruction efficiency requirement.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
4. The permit to install for this emissions unit R001 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Glycol ethers

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 22.1

Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 1893.9

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 2881

Pollutant: Naphthalene

TLV (mg/m<sup>3</sup>): 52

Maximum Hourly Emission Rate (lbs/hr): 0.17

Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 5.4

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 1238.1

Physical changes to or in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in

the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **D. Reporting Requirements**

1. 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 in emissions units R001, R002, R003, R004, R008, and R009. This report shall identify the cause for the use of the photochemically reactive material(s) and the

Emissions Unit ID: **R001**

estimated total quantity of material(s) emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.

2. The permittee shall submit deviation (excursion) reports which identify any exceedance of the HAP emissions limitations set forth in term A.2.h. If no exceedances occurred during the reporting period then a report is required stating so.
3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in T&C B.2.
4. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of organic compound emissions in TPY for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
5. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of total usages in pounds from the inks, adhesives, blanket wash(including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additives for all emission units for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
6. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in T&C A.2.d.
7. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

#### **E. Testing Requirements**

1. Formulation data or USEPA method 24 (for coatings) or 24A (for flexographic and rotogravure printing lines and related coatings) shall be used to determine the OC contents of the inks and coatings.
2. The OC emissions are calculated by multiplying the percent (%) by weight OC content times the material usage rate times the ink retention consistent with the Ohio EPA Engineering Guide #56 times the control efficiency.

Emissions Unit ID: **R001**

3. Compliance with the visible particulate limitation shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.
4. Compliance with the percent by weight OC content and the usage limitations in pounds will be determined by the recordkeeping in Term C.1.
5. The permittee shall conduct emission testing for the oxidizer for emissions units R001, R002, R003, R004, R008, and R009 in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after issuance of the permit for emissions units R001, R002, R003, R004, R008, and R009.
  - b. The emission testing shall be conducted to demonstrate compliance with the 90.0 % control efficiency limitation for organics.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency.

The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may

request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

6. Compliance with the HAP emission limitation will be determined by the record keeping in T&C C.2.
7. Compliance with the PM, PM<sub>10</sub>, SO<sub>2</sub>, NOX and CO limits will be determined by multiplying the fuel usage by the AP-42 emission factors taken from USEPA's AP-42, 5th Edition, Section 1.3 and 1.4.
8. Compliance with the recordkeeping requirement of keeping monthly usage records for each emissions unit (Term C.1.c) shall be determined by the following example calculation:

$$Q (R001) = Q \text{ total} \times \frac{I (R001)}{I (\text{sum of R001- R004, R008,R009})}$$

Q (R001) = the ink consumed by emission unit R001 for the month.

Q (total)= the total ink used by the permittee for the month.

I (R001) = the total impressions for emissions unit R001 for the month.

I (sum of R001-R004, R008 and R009) = the total impressions for emissions units R001, R002, R003, R004, R008, and R009 for the month.

#### F. Miscellaneous Requirements

1. If probable cause exist indicating that any of the emissions units R001, R002, R003, R004, R008, and R009 are causing or contributing to a nuisance in violation of Ohio Administrative Code rule 3745-15-07, the owner or operator of these emissions units shall be required to submit and implement a control program which will bring this emissions unit into compliance.
2. The following terms and conditions shall supersede all the air pollution control requirements contained in the modification to permit to install 14-2849 issued for emissions units R001, R002, R003, R004, R008, and R009 on January 4, 1996.

Special Terms and Conditions A-F

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-07(A)
R002 - 5-unit Hantscho HWOPL with thermal oxidizer (modification)	OAC rule 3745-31-05(A)(3)	
	OAC rule 3745-31-05(D)	
	OAC rule 3745-21-07(G)	
	OAC rule 3745-17-11	

Applicable Emissions  
Limitations/Control Measures

Dryer and oxidizer emissions  
combined:

0.3 lb/MMBtu NO<sub>x</sub>,  
22.6 TPY NO<sub>x</sub>\*

0.07 lb/MMBtu CO,  
5.6 TPY CO\*

0.05 lb/MMBtu SO<sub>2</sub>,  
2.0 TPY SO<sub>2</sub>\*

2.2 TPY PM/PM<sub>10</sub>\*

56.1 TPY OC per press

\* For emissions units R001, R002,  
R003, R004, R008 and R009,  
combined.

See term and condition A.2.a. and  
A.2.b.

See term and condition A.2.c,  
A.2.d, A.2.e, A.2.h and B.3.

Exempt, see term B.1.

0.551 lb/hour PM/PM<sub>10</sub>

See term and condition A.2.g.

**2. Additional Terms and Conditions**

**2.a** Combined organic compound emissions from the oxidizer exhaust of emissions units R001, R002, R003, R004, R008 and R009 shall not exceed 30.37 pounds per hour.

- 2.b** Daily organic compound emissions from each emissions unit R001, R002, R003, R004, R008 and R009 shall not exceed 307.5 pounds per day, which includes the limits of 121.5 pounds per day from the oxidizer exhaust and 186.0 pounds per day from the fugitive emissions associated with the fountain solutions, blanket wash (including rubber revitalizer), metering roller cleaner, and non piling additive.
- 2.c** Annual combined organic compound emissions from all materials employed on emission units R001, R002, R003, R004, R008 and R009 shall not exceed 98.6 tons per year, based on a rolling 12-month summation. The permittee has existing records of the amount of OC emissions.
- 2.d** The following Organic Compound (OC) contents shall not be exceeded for all emission units:
- |    |                         |                 |
|----|-------------------------|-----------------|
| a. | Ink                     | 50% by wt. OC   |
| b. | Adhesives               | 1.0 % by wt. OC |
| c. | Blanket wash            | 100% by wt. OC  |
| d. | Metering Roller Cleaner | 100% by wt. OC  |
| e. | Fountain solution No.1  | 30% by wt. OC   |
| f. | Fountain solution No.2  | 85% by wt. OC   |
| g. | Non piling additive     | 50% by wt. OC   |
- 2.e** The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 90.0 % (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002, R003, R004, R008, and R009.
- 2.f** The hourly and/or daily emission limitation(s) outlined in this permit are based upon the maximum hourly production/application rate at 24 hours per day. Therefore, no hourly and/or daily records are required.
- 2.g** Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004, R008 and R009 shall not exceed 20% percent opacity, as a six-minute average, except as specified by rule.
- 2.h** The emissions of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from this facility 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 determined on a rolling, 12-month summation.

- 2.i** The OC emission limitations in this permit are based on the maximum organic compound content limits in Term A.2.d., the maximum allowable material usage limits in Term B.3., and the thermal oxidizer OC control efficiency in Term A.2.e. In addition, emissions are based on the following assumptions:

Material	<u>% Web Retention</u>	<u>Oven Capture % Efficiency</u>	<u>% Fugitive</u>
Presses R001 - R004, R008, R009			
Ink	20	100	0
Adhesives	0	100	0
Blanket Wash*	0	40	60
Fountain Sol'n	0	70	30
Non-piling Additive	0	70	30

Metering roller cleaner emissions are based on 25% retention in the rags and 75% fugitive emissions.

\* Based on automatic blanket wash.

## B. Operational Restrictions

- The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.
- The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002, R003, R004, R008, and R009 are in operation shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent performance test that demonstrated compliance with the 90.0% overall VOC destruction efficiency requirement.
- Coating and cleanup material usages for emissions units R001, R002, R003, R004, R008 and R009 combined shall not exceed the following limits:

	Material Usages <u>Lbs/yr**</u>
a. Inks	2,100,000
b. Blanket wash***	120,000

c.	Metering Roller Cleaner	12,000
d.	Fountain solution No. 1*	130,000
e.	Fountain solution No. 2*	16,000
f.	Non Piling Additive	20,000
g.	Adhesives	100,000

\* This usage limit is for the fountain solution concentrate.

\*\* Compliance with the annual usage limitations shall be determined on a rolling, 12-month summation.

\*\*\* Blanket wash includes rubber revitalizer.

4. To ensure an evaporative OC/VOC loss from the hand cleanup process of no more than 50% (by weight) from solvents having a vapor pressure less than 10 mmHg (0.19 psia) at 20 degrees Celsius (68 degrees Fahrenheit), all rags used in the cleanup process shall be stored in closed containers.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for each emissions unit:
  - a. The company identification of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit.
  - b. The percent (%) by weight of the organic compound content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for each emissions unit.
  - c. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit. The amount of material allocated to each emissions unit will be based on the number of impressions made at each emissions unit. Example calculations are referenced in term and condition E.8.
  - d. A record of each liquid organic material employed in each emissions unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
  - e. The total rolling, 12-month summation of the ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, adhesive, and non piling

additive in pounds employed for emissions units R001, R002, R003, R004, R008, and R009.

- f. The total rolling, 12-month summation of the controlled Organic Compound (OC) emissions in tons per year from the inks, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for emissions units R001, R002, R003, R004, R008, and R009.
2. The permittee shall collect and record the following information each month for the entire facility:
    - a. The name and identification number of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive.
    - b. The individual Hazardous Air Pollutant (HAP) content for each HAP of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of individual HAP per pound of concentrated material.
    - c. The total combined HAP content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of combined HAPs per pound of concentrated material [sum all the individual HAP contents from (b)].
    - d. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed, as concentrate.
    - e. The total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d)].
    - f. The total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d)].
    - g. The updated rolling, 12-month summation of the individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons.
    - h. The updated rolling, 12-month summation of the combined HAP emissions for all HAP from all coatings and cleanup materials employed, in pounds or tons.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be

**Quebecor World Red Bank Division**

**PTI Application: 14-04560**

**Modif**

**Facility ID: 1431070458**

**Emissions Unit ID: R002**

obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when emissions units R001, R002, R003, R004, R008, and R009 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated compliance with the 90.0% overall OC destruction efficiency requirement.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
4. The permit to install for this emissions unit R002 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Glycol ethers

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 22.1

Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 1893.9

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 2881

Pollutant: Naphthalene

TLV (mg/m<sup>3</sup>): 52

Maximum Hourly Emission Rate (lbs/hr): 0.17

Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 5.4

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 1238.1

Physical changes to or in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in

the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **D. Reporting Requirements**

1. 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 in emissions units R001, R002, R003, R004, R008, and R009. This report shall identify the cause for the use of the photochemically reactive material(s) and the

Emissions Unit ID: **R002**

estimated total quantity of material(s) emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.

2. The permittee shall submit deviation (excursion) reports which identify any exceedance of the HAP emissions limitations set forth in term A.2.h. If no exceedances occurred during the reporting period then a report is required stating so.
3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in T&C B.2.
4. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of organic compound emissions in TPY for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
5. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of total usages in pounds from the inks, adhesives, blanket wash(including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additives for all emission units for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
6. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in T&C A.2.d.
7. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

#### **E. Testing Requirements**

1. Formulation data or USEPA method 24 (for coatings) or 24A (for flexographic and rotogravure printing lines and related coatings) shall be used to determine the OC contents of the inks and coatings.
2. The OC emissions are calculated by multiplying the percent (%) by weight OC content times the material usage rate times the ink retention consistent with the Ohio EPA Engineering Guide #56 times the control efficiency.

Emissions Unit ID: **R002**

3. Compliance with the visible particulate limitation shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.
4. Compliance with the percent by weight OC content and the usage limitations in pounds will be determined by the recordkeeping in Term C.1.
5. The permittee shall conduct emission testing for the oxidizer for emissions units R001, R002, R003, R004, R008, and R009 in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after issuance of the permit for emissions units R001, R002, R003, R004, R008, and R009.
  - b. The emission testing shall be conducted to demonstrate compliance with the 90.0 % control efficiency limitation for organics.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency.

The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may

request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

6. Compliance with the HAP emission limitation will be determined by the record keeping in T&C C.2.
7. Compliance with the PM, PM<sub>10</sub>, SO<sub>2</sub>, NOX and CO limits will be determined by multiplying the fuel usage by the AP-42 emission factors taken from USEPA's AP-42, 5th Edition, Section 1.3 and 1.4.
8. Compliance with the recordkeeping requirement of keeping monthly usage records for each emissions unit (Term C.1.c) shall be determined by the following example calculation:

$$Q (R001) = Q \text{ total} \times \frac{I (R001)}{I (\text{sum of R001- R004, R008,R009})}$$

Q (R001) = the ink consumed by emission unit R001 for the month.

Q (total)= the total ink used by the permittee for the month.

I (R001) = the total impressions for emissions unit R001 for the month.

I (sum of R001-R004, R008 and R009) = the total impressions for emissions units R001, R002, R003, R004, R008, and R009 for the month.

#### F. Miscellaneous Requirements

1. If probable cause exist indicating that any of the emissions units R001, R002, R003, R004, R008, and R009 are causing or contributing to a nuisance in violation of Ohio Administrative Code rule 3745-15-07, the owner or operator of these emissions units shall be required to submit and implement a control program which will bring this emissions unit into compliance.
2. The following terms and conditions shall supersede all the air pollution control requirements contained in the modification to permit to install 14-2849 issued for emissions units R001, R002, R003, R004, R008, and R009 on January 4, 1996.

Special Terms and Conditions A-F

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-11
R003 - 5-unit Royal Zenith HWOPL with thermal oxidizer (modification)	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)
	OAC rule 3745-31-05(D)	
	OAC rule 3745-21-07(G)	

Quebec

PTI A

Modification Issued: 2/26/2002

Emissions Unit ID: R003

Applicable Emissions  
Limitations/Control Measures

Dryer and oxidizer emissions  
combined:

0.3 lb/MMBtu NO<sub>x</sub>,  
22.6 TPY NO<sub>x</sub>\*

0.07 lb/MMBtu CO,  
5.6 TPY CO\*

0.05 lb/MMBtu SO<sub>2</sub>,  
2.0 TPY SO<sub>2</sub>\*

2.2 TPY PM/PM<sub>10</sub>\*

56.1 TPY OC per press

\* For emissions units R001, R002,  
R003, R004, R008 and R009  
combined.

See term and conditions A.2.a. and  
A.2.b.

See term and conditions A.2.c,  
A.2.d., A.2.e., A.2.h. and B.3.

Exempt, see term B.1.

0.551 lb/hour PM/PM<sub>10</sub>

See term and condition A.2.g.

**2. Additional Terms and Conditions**

- 2.a** Combined organic compound emissions from the oxidizer exhaust of emissions units R001, R002, R003, R004, R008 and R009 shall not exceed 30.37 pounds per hour.

- 2.b** Daily organic compound emissions from each emissions unit R001, R002, R003, R004, R008 and R009 shall not exceed 307.5 pounds per day, which includes the limits of 121.5 pounds per day from the oxidizer exhaust and 186.0 pounds per day from the fugitive emissions associated with the fountain solutions, blanket wash (including rubber revitalizer), metering roller cleaner, and non piling additive.
- 2.c** Annual combined organic compound emissions from all materials employed on emission units R001, R002, R003, R004, R008 and R009 shall not exceed 98.6 tons per year, based on a rolling 12-month summation. The permittee has existing records of the amount of OC emissions.
- 2.d** The following Organic Compound (OC) contents shall not be exceeded for all emission units:
- |    |                         |                 |
|----|-------------------------|-----------------|
| a. | Ink                     | 50% by wt. OC   |
| b. | Adhesives               | 1.0 % by wt. OC |
| c. | Blanket wash            | 100% by wt. OC  |
| d. | Metering Roller Cleaner | 100% by wt. OC  |
| e. | Fountain solution No.1  | 30% by wt. OC   |
| f. | Fountain solution No.2  | 85% by wt. OC   |
| g. | Non piling additive     | 50% by wt. OC   |
- 2.e** The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 90.0 % (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002, R003, R004, R008, and R009.
- 2.f** The hourly and/or daily emission limitation(s) outlined in this permit are based upon the maximum hourly production/application rate at 24 hours per day. Therefore, no hourly and/or daily records are required.
- 2.g** Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004, R008 and R009 shall not exceed 20% percent opacity, as a six-minute average, except as specified by rule.
- 2.h** The emissions of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from this facility 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 determined on a rolling, 12-month summation.

- 2.i** The OC emission limitations in this permit are based on the maximum organic compound content limits in Term A.2.d. the maximum allowable material usage limits in Term B.3., and the thermal oxidizer OC control efficiency in Term A.2.e. In addition, emissions are based on the following assumptions:

Material	<u>% Web Retention</u>	<u>Oven Capture % Efficiency</u>	<u>% Fugitive</u>
Presses R001 - R004, R008, R009			
Ink	20	100	0
Adhesives	0	100	0
Blanket Wash*	0	40	60
Fountain Sol'n	0	70	30
Non-piling Additive	0	70	30

Metering roller cleaner emissions are based on 25% retention in the rags and 75% fugitive emissions.

\* Based on automatic blanket wash.

## B. Operational Restrictions

- The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.
- The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002, R003, R004, R008, and R009 are in operation shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent performance test that demonstrated compliance with the 90.0% overall VOC destruction efficiency requirement.
- Coating and cleanup material usages for emissions units R001, R002, R003, R004, R008 and R009 combined shall not exceed the following limits:

	Material Usages <u>Lbs/yr**</u>
a. Inks	2,100,000
b. Blanket wash***	120,000

c.	Metering Roller Cleaner	12,000
d.	Fountain solution No. 1*	130,000
e.	Fountain solution No. 2*	16,000
f.	Non Piling Additive	20,000
g.	Adhesives	100,000

\* This usage limit is for the fountain solution concentrate.

\*\* Compliance with the annual usage limitations shall be determined on a rolling, 12-month summation.

\*\*\* Blanket wash includes rubber revitalizer.

4. To ensure an evaporative OC/VOC loss from the hand cleanup process of no more than 50% (by weight) from solvents having a vapor pressure less than 10 mmHg (0.19 psia) at 20 degrees Celsius (68 degrees Fahrenheit), all rags used in the cleanup process shall be stored in closed containers.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for each emissions unit:
  - a. The company identification of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit.
  - b. The percent (%) by weight of the organic compound content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for each emissions unit.
  - c. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit. The amount of material allocated to each emissions unit will be based on the number of impressions made at each emissions unit. Example calculations are referenced in term and condition E.8.
  - d. A record of each liquid organic material employed in each emissions unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
  - e. The total rolling, 12-month summation of the ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, adhesive, and non piling

additive in pounds employed for emissions units R001, R002, R003, R004, R008, and R009.

- f. The total rolling, 12-month summation of the controlled Organic Compound (OC) emissions in tons per year from the inks, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for emissions units R001, R002, R003, R004, R008, and R009.
2. The permittee shall collect and record the following information each month for the entire facility:
    - a. The name and identification number of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive.
    - b. The individual Hazardous Air Pollutant (HAP) content for each HAP of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of individual HAP per pound of concentrated material.
    - c. The total combined HAP content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of combined HAPs per pound of concentrated material [sum all the individual HAP contents from (b)].
    - d. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive material employed, as concentrate.
    - e. The total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d)].
    - f. The total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d)].
    - g. The updated rolling, 12-month summation of the individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons.
    - h. The updated rolling, 12-month summation of the combined HAP emissions for all HAP from all coatings and cleanup materials employed, in pounds or tons.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

Emissions Unit ID: **R003**

3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when emissions units R001, R002, R003, R004, R008, and R009 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated compliance with the 90% overall OC destruction efficiency requirement.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
4. The permit to install for this emissions unit R003 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Glycol ethers

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 22.1

Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 1893.9

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 2881

Pollutant: Naphthalene

TLV (mg/m<sup>3</sup>): 52

Maximum Hourly Emission Rate (lbs/hr): 0.17

Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 5.4

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 1238.1

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### D. Reporting Requirements

1. 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 in emissions units R001, R002, R003, R004, R008, and R009. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify any exceedance of the HAP emissions limitations set forth in term A.2.h. If no exceedances occurred during the reporting period then a report is required stating so.
3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in T&C B.2.
4. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of organic compound emissions in TPY for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
5. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of total usages in pounds from the inks, adhesives, blanket wash(including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additives for all emission units for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
6. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in T&C A.2.d.
7. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

#### E. Testing Requirements

1. Formulation data or USEPA method 24 (for coatings) or 24A (for flexographic and rotogravure

Emissions Unit ID: R003

printing lines and related coatings) shall be used to determine the OC contents of the inks and coatings.

2. The OC emissions are calculated by multiplying the percent (%) by weight OC content times the material usage rate times the ink retention consistent with the Ohio EPA Engineering Guide #56 times the control efficiency.
3. Compliance with the visible particulate limitation shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.
4. Compliance with the percent by weight OC content and the usage limitations in pounds will be determined by the recordkeeping in Term C.1.
5. The permittee shall conduct emission testing for the oxidizer for emissions units R001, R002, R003, R004, R008, and R009 in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after issuance of the permit for emissions units R001, R002, R003, R004, R008, and R009.
  - b. The emission testing shall be conducted to demonstrate compliance with the 90.0 % control efficiency limitation for organics.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency.

The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to

ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

6. Compliance with the HAP emission limitation will be determined by the record keeping in T&C C.2.
7. Compliance with the PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>X</sub> and CO limits will be determined by multiplying the fuel usage by the AP-42 emission factors taken from USEPA's AP-42, 5th Edition, Section 1.3 and 1.4.
8. Compliance with the recordkeeping requirement of keeping monthly usage records for each emissions unit (Term C.1.c) shall be determined by the following example calculation:

$$Q (R001) = Q \text{ total} \times \frac{I (R001)}{I (\text{sum of R001- R004, R008,R009})}$$

Q (R001) = the ink consumed by emission unit R001 for the month.

Q (total) = the total ink used by the permittee for the month.

I (R001) = the total impressions for emissions unit R001 for the month.

I (sum of R001-R004, R008 and R009) = the total impressions for emissions units R001, R002, R003, R004, R008, and R009 for the month.

#### **F. Miscellaneous Requirements**

1. If probable cause exist indicating that any of the emissions units R001, R002, R003, R004, R008, and R009 are causing or contributing to a nuisance in violation of Ohio Administrative Code rule 3745-15-07, the owner or operator of these emissions units shall be required to submit and implement a control program which will bring this emissions unit into compliance.
2. The following terms and conditions shall supersede all the air pollution control requirements contained in the modification to permit to install 14-2849 issued for emissions units R001, R002, R003, R004, R008, and R009 on January 4, 1996.

**Quebecor World Red Bank Division**

**PTI Application: 14 04560**

**Modif**

**Facility ID: 1431070458**

**Emissions Unit ID: R003**

Special Terms and Conditions A-F

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-21-07(G)
R004 - 8-unit Harris HWOPL with thermal oxidizer (modification)	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11
	OAC rule 3745-31-05(D)	OAC rule 3745-17-07(A)

Quebec

PTI A

Modification Issued: 2/26/2002

Emissions Unit ID: R004

Applicable Emissions  
Limitations/Control Measures

Dryer and oxidizer emissions  
combined:

0.3 lb/MMBtu NO<sub>x</sub>,  
22.6 TPY NO<sub>x</sub>\*

0.07 lb/MMBtu CO,  
5.6 TPY CO\*

0.05 lb/MMBtu SO<sub>2</sub>,  
2.0 TPY SO<sub>2</sub>\*

2.2 TPY PM/PM<sub>10</sub>\*

56.1 TPY OC per press

\* For emissions unit R001, R002,  
R003, R004, R008 and R009  
combined.

See term and condition A.2.a and  
A.2.b.

See term and condition A.2.c,  
A.2.d., A.2.e, A.2.h and B.3.

Exempt, see term B.1.

0.551 lb/hour PM/PM<sub>10</sub>

See Term and Condition A.2.g.

## **2. Additional Terms and Conditions**

- 2.a** Combined organic compound emissions from the oxidizer exhaust of emissions units R001, R002, R003, R004, R008 and R009 shall not exceed 30.37 pounds per hour.

- 2.b** Daily organic compound emissions from each emissions unit R001, R002, R003, R004, R008 and R009 shall not exceed 307.5 pounds per day, which includes the limits of 121.5 pounds per day from the oxidizer exhaust and 186.0 pounds per day from the fugitive emissions associated with the fountain solutions, blanket wash (including rubber revitalizer), metering roller cleaner, and non piling additive.
- 2.c** Annual combined organic compound emissions from all materials employed on emission units R001, R002, R003, R004, R008 and R009 shall not exceed 98.6 tons per year, based on a rolling 12-month summation. The permittee has existing records of the amount of OC emissions.
- 2.d** The following Organic Compound (OC) contents shall not be exceeded for all emission units:
- |    |                         |                 |
|----|-------------------------|-----------------|
| a. | Ink                     | 50% by wt. OC   |
| b. | Adhesives               | 1.0 % by wt. OC |
| c. | Blanket wash            | 100% by wt. OC  |
| d. | Metering Roller Cleaner | 100% by wt. OC  |
| e. | Fountain solution No.1  | 30% by wt. OC   |
| f. | Fountain solution No.2  | 85% by wt. OC   |
| g. | Non piling additive     | 50% by wt. OC   |
- 2.e** The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 90.0 % (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002, R003, R004, R008, and R009.
- 2.f** The hourly and/or daily emission limitation(s) outlined in this permit are based upon the maximum hourly production/application rate at 24 hours per day. Therefore, no hourly and/or daily records are required.
- 2.g** Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004, R008 and R009 shall not exceed 20% percent opacity, as a six-minute average, except as specified by rule.
- 2.h** The emissions of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from this facility 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

determined on a rolling, 12-month summation.

- 2.i The OC emission limitations in this permit are based on the maximum organic compound content limits in Term A.2.d., the maximum allowable material usage limits in Term B.3., and the thermal oxidizer OC control efficiency in Term A.2.e. In addition, emissions are based on the following assumptions:

Material	<u>% Web Retention</u>	<u>Oven Capture % Efficiency</u>	<u>% Fugitive</u>
Presses R001 - R004, R008, R009			
Ink	20	100	0
Adhesives	0	100	0
Blanket Wash*	0	40	60
Fountain Sol'n	0	70	30
Non-piling Additive	0	70	30

Metering roller cleaner emissions are based on 25% retention in the rags and 75% fugitive emissions.

\* Based on automatic blanket wash.

**B. Operational Restrictions**

1. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.
2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002, R003, R004, R008, and R009 are in operation shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent performance test that demonstrated compliance with the 90.0% overall VOC destruction efficiency requirement.
3. Coating and cleanup material usages for emissions units R001, R002, R003, R004, R008 and R009 combined shall not exceed the following limits:

	Material Usages
	<u>Lbs/yr**</u>
a. Inks	2,100,000

b.	Blanket wash***	120,000
c.	Metering Roller Cleaner	12,000
d.	Fountain solution No. 1*	130,000
e.	Fountain solution No. 2*	16,000
f.	Non Piling Additive	20,000
g.	Adhesives	100,000

\* This usage limit is for the fountain solution concentrate.

\*\* Compliance with the annual usage limitations shall be determined on a rolling, 12-month summation.

\*\*\* Blanket wash includes rubber revitalizer.

4. To ensure an evaporative OC/VOC loss from the hand cleanup process of no more than 50% (by weight) from solvents having a vapor pressure less than 10 mmHg (0.19 psia) at 20 degrees Celsius (68 degrees Fahrenheit), all rags used in the cleanup process shall be stored in closed containers.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for each emissions unit:
  - a. The company identification of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit.
  - b. The percent (%) by weight of the organic compound content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for each emissions unit.
  - c. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit. The amount of material allocated to each emissions unit will be based on the number of impressions made at each emissions unit. Example calculations are referenced in term and condition E.8.
  - d. A record of each liquid organic material employed in each emissions unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
  - e. The total rolling, 12-month summation of the ink, adhesive, blanket wash (including

- rubber revitalizer), metering roller cleaner, fountain solution, adhesive, and non piling additive in pounds employed for emissions units R001, R002, R003, R004, R008, and R009.
- f. The total rolling, 12-month summation of the controlled Organic Compound (OC) emissions in tons per year from the inks, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for emissions units R001, R002, R003, R004, R008, and R009.
2. The permittee shall collect and record the following information each month for the entire facility:
- a. The name and identification number of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive.
- b. The individual Hazardous Air Pollutant (HAP) content for each HAP of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of individual HAP per pound of concentrated material.
- c. The total combined HAP content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of combined HAPs per pound of concentrated material [sum all the individual HAP contents from (b)].
- d. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive material employed, as concentrate.
- e. The total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d)].
- f. The total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d)].
- g. The updated rolling, 12-month summation of the individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons.
- h. The updated rolling, 12-month summation of the combined HAP emissions for all HAP from all coatings and cleanup materials employed, in pounds or tons.

Emissions Unit ID: R004

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when emissions units R001, R002, R003, R004, R008, and R009 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated compliance with the 90.0% overall OC destruction efficiency requirement.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
4. The permit to install for this emissions unit R004 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Glycol ethers

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 22.1

Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 1893.9

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 2881

Pollutant: Naphthalene

TLV (mg/m<sup>3</sup>): 52  
 Maximum Hourly Emission Rate (lbs/hr): 0.17  
 Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 5.4  
 Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 1238.1

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior to the change.
- The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"
- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### D. Reporting Requirements

1. 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 in emissions units R001, R002, R003, R004, R008, and R009. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify any exceedance of the HAP emissions limitations set forth in term A.2.h. If no exceedances occurred during the reporting period then a report is required stating so.
3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in T&C B.2.
4. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of organic compound emissions in TPY for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
5. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of total usages in pounds from the inks, adhesives, blanket wash(including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additives for all emission units for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
6. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in T&C A.2.d.
7. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## E. Testing Requirements

1. Formulation data or USEPA method 24 (for coatings) or 24A (for flexographic and rotogravure printing lines and related coatings) shall be used to determine the OC contents of the inks and coatings.
2. The OC emissions are calculated by multiplying the percent (%) by weight OC content times the material usage rate times the ink retention consistent with the Ohio EPA Engineering Guide #56 times the control efficiency.
3. Compliance with the visible particulate limitation shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.
4. Compliance with the percent by weight OC content and the usage limitations in pounds will be determined by the recordkeeping in Term C.1.
5. The permittee shall conduct emission testing for the oxidizer for emissions units R001, R002, R003, R004, R008, and R009 in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after issuance of the permit for emissions units R001, R002, R003, R004, R008, and R009.
  - b. The emission testing shall be conducted to demonstrate compliance with the 90.0 % control efficiency limitation for organics.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency.

The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

6. Compliance with the HAP emission limitation will be determined by the record keeping in T&C C.2.
7. Compliance with the PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>X</sub> and CO limits will be determined by multiplying the fuel usage by the AP-42 emission factors taken from USEPA's AP-42, 5th Edition, Section 1.3 and 1.4.
8. Compliance with the recordkeeping requirement of keeping monthly usage records for each emissions unit (Term C.1.c) shall be determined by the following example calculation:

$$Q (R001) = Q \text{ total} \times \frac{I (R001)}{I (\text{sum of R001- R004, R008,R009})}$$

Q (R001) = the ink consumed by emission unit R001 for the month.

Q (total) = the total ink used by the permittee for the month.

I (R001) = the total impressions for emissions unit R001 for the month.

I (sum of R001-R004, R008 and R009) = the total impressions for emissions units R001, R002, R003, R004, R008, and R009 for the month.

## F. Miscellaneous Requirements

1. If probable cause exist indicating that any of the emissions units R001, R002, R003, R004, R008, and R009 are causing or contributing to a nuisance in violation of Ohio Administrative Code rule 3745-15-07, the owner or operator of these emissions units shall be required to submit and implement a control program which will bring this emissions unit into compliance.
2. The following terms and conditions shall supersede all the air pollution control requirements

**Quebecor World Red Bank Division**

**PTI Application: 14-04560**

**Modif**

**Facility ID: 1431070458**

Emissions Unit ID: **R004**

contained in the modification to permit to install 14-2849 issued for emissions units R001, R002, R003, R004, R008, and R009 on January 4, 1996.

Special Terms and Conditions A-F

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-21-07(G)
R008 - 6-unit Hantscho HWOPL with thermal oxidizer (modification)	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11
		OAC rule 3745-17-07(A)
	OAC rule 3745-31-05(D)	

Applicable Emissions  
Limitations/Control Measures

Dryer and oxidizer emissions  
combined:

0.3 lb/MMBtu NO<sub>x</sub>,  
22.6 TPY NO<sub>x</sub>\*

0.07 lb/MMBtu CO,  
5.6 TPY CO\*

0.05 lb/MMBtu SO<sub>2</sub>,  
2.0 TPY SO<sub>2</sub>\*

2.2 TPY PM/PM<sub>10</sub>\*

56.1 TPY OC per press

\* For emissions unit R001, R002,  
R003, R004, R008 and R009  
combined.

See Term and Condition A.2.a and  
A.2.b.

See Term and Condition A.2.c,  
A.2.d., A.2.e, A.2.h and B.31

Exempt, see term B.1.

0.551 lb/hour PM/PM<sub>10</sub>

See Term and Condition A.2.g.

**2. Additional Terms and Conditions**

- 2.a** Combined organic compound emissions from the oxidizer exhaust of emissions units R001, R002, R003, R004, R008 and R009 shall not exceed 30.37 pounds per hour.

- 2.b** Daily organic compound emissions from each emissions unit R001, R002, R003, R004, R008 and R009 shall not exceed 307.5 pounds per day, which includes the limits of 121.5 pounds per day from the oxidizer exhaust and 186.0 pounds per day from the fugitive emissions associated with the fountain solutions, blanket wash (including rubber revitalizer), metering roller cleaner, and non piling additive.
- 2.c** Annual combined organic compound emissions from all materials employed on emission units R001, R002, R003, R004, R008 and R009 shall not exceed 98.6 tons per year, based on a rolling 12-month summation. The permittee has existing records of the amount of OC emissions.
- 2.d** The following Organic Compound (OC) contents shall not be exceeded for all emission units:
- |    |                         |                 |
|----|-------------------------|-----------------|
| a. | Ink                     | 50% by wt. OC   |
| b. | Adhesives               | 1.0 % by wt. OC |
| c. | Blanket wash            | 100% by wt. OC  |
| d. | Metering Roller Cleaner | 100% by wt. OC  |
| e. | Fountain solution No.1  | 30% by wt. OC   |
| f. | Fountain solution No.2  | 85% by wt. OC   |
| g. | Non piling additive     | 50% by wt. OC   |
- 2.e** The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 90.0 % (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002, R003, R004, R008, and R009.
- 2.f** The hourly and/or daily emission limitation(s) outlined in this permit are based upon the maximum hourly production/application rate at 24 hours per day. Therefore, no hourly and/or daily records are required.
- 2.g** Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004, R008 and R009 shall not exceed 20% percent opacity, as a six-minute average, except as specified by rule.
- 2.h** The emissions of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from this facility 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 determined on a rolling 12-month summation.

- 2.i** The OC emission limitations in this permit are based on the maximum organic compound content limits in Term A.2.d, the maximum allowable material usage limits in Term B.3., and the thermal oxidizer OC control efficiency in Term A.2.e. In addition, emissions are based on the following assumptions:

Material	<u>% Web Retention</u>	<u>Oven Capture % Efficiency</u>	<u>% Fugitive</u>
Presses R001 - R004, R008, R009			
Ink	20	100	0
Adhesives	0	100	0
Blanket Wash*	0	40	60
Fountain Sol'n	0	70	30
Non-piling Additive	0	70	30

Metering roller cleaner emissions are based on 25% retention in the rags and 75% fugitive emissions.

\* Based on automatic blanket wash.

## B. Operational Restrictions

- The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.
- The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002, R003, R004, R008, and R009 are in operation shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent performance test that demonstrated compliance with the 90.0% overall VOC destruction efficiency requirement.
- Coating and cleanup material usages for emissions units R001, R002, R003, R004, R008 and R009 combined shall not exceed the following limits:

	Material Usages <u>Lbs/yr**</u>
a. Inks	2,100,000
b. Blanket wash***	120,000

c.	Metering Roller Cleaner	12,000
d.	Fountain solution No. 1*	130,000
e.	Fountain solution No. 2*	16,000
f.	Non Piling Additive	20,000
g.	Adhesives	100,000

\* This usage limit is for the fountain solution concentrate.

\*\* Compliance with the annual usage limitations shall be determined on a rolling, 12-month summation.

\*\*\* Blanket wash includes rubber revitalizer.

4. To ensure an evaporative OC/VOC loss from the hand cleanup process of no more than 50% (by weight) from solvents having a vapor pressure less than 10 mmHg (0.19 psia) at 20 degrees Celsius (68 degrees Fahrenheit), all rags used in the cleanup process shall be stored in closed containers.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for each emissions unit:
  - a. The company identification of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit.
  - b. The percent (%) by weight of the organic compound content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for each emissions unit.
  - c. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit. The amount of material allocated to each emissions unit will be based on the number of impressions made at each emissions unit. Example calculations are referenced in term and condition E.8.
  - d. A record of each liquid organic material employed in each emissions unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
  - e. The total rolling, 12-month summation of the ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, adhesive, and non piling

additive in pounds employed for emissions units R001, R002, R003, R004, R008, and R009.

- f. The total rolling, 12-month summation of the controlled Organic Compound (OC) emissions in tons per year from the inks, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for emissions units R001, R002, R003, R004, R008, and R009.
2. The permittee shall collect and record the following information each month for the entire facility:
    - a. The name and identification number of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive.
    - b. The individual Hazardous Air Pollutant (HAP) content for each HAP of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of individual HAP per pound of concentrated material.
    - c. The total combined HAP content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of combined HAPs per pound of concentrated material [sum all the individual HAP contents from (b)].
    - d. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive material employed, as concentrate.
    - e. The total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d)].
    - f. The total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d)].
    - g. The updated rolling, 12-month summation of the individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons.
    - h. The updated rolling, 12-month summation of the combined HAP emissions for all HAP from all coatings and cleanup materials employed, in pounds or tons.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be

Emissions Unit ID: R008

obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when emissions units R001, R002, R003, R004, R008, and R009 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated compliance with the 90.0% overall OC destruction efficiency requirement.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
4. The permit to install for this emissions unit R008 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Glycol ethers

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 22.1

Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 1893.9

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 2881

Pollutant: Naphthalene

TLV (mg/m<sup>3</sup>): 52

Maximum Hourly Emission Rate (lbs/hr): 0.17

Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 5.4

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 1238.1

Physical changes to or in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### D. Reporting Requirements

1. 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 in emissions units R001, R002, R003, R004, R008, and R009. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify any exceedance of the HAP emissions limitations set forth in term A.2.h. If no exceedances occurred during the reporting period then a report is required stating so.
3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in T&C B.2.
4. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of organic compound emissions in TPY for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
5. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of total usages in pounds from the inks, adhesives, blanket wash(including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additives for all emission units for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
6. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in T&C A.2.d.
7. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

### E. Testing Requirements

1. Formulation data or USEPA method 24 (for coatings) or 24A (for flexographic and rotogravure printing lines and related coatings) shall be used to determine the OC contents of the inks and coatings.
2. The OC emissions are calculated by multiplying the percent (%) by weight OC content times the material usage rate times the ink retention consistent with the Ohio EPA Engineering Guide #56 times the control efficiency.
3. Compliance with the visible particulate limitation shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.
4. Compliance with the percent by weight OC content and the usage limitations in pounds will be determined by the recordkeeping in Term C.1.
5. The permittee shall conduct emission testing for the oxidizer for emissions units R001, R002, R003, R004, R008, and R009 in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after issuance of the permit for emissions units R001, R002, R003, R004, R008, and R009.
  - b. The emission testing shall be conducted to demonstrate compliance with the 90.0 % control efficiency limitation for organics.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency.

The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

6. Compliance with the HAP emission limitation will be determined by the record keeping in T&C C.2.
7. Compliance with the PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>X</sub> and CO limits will be determined by multiplying the fuel usage by the AP-42 emission factors taken from USEPA's AP-42, 5th Edition, Section 1.3 and 1.4.
8. Compliance with the recordkeeping requirement of keeping monthly usage records for each emissions unit (Term C.1.c) shall be determined by the following example calculation:

$$Q (R001) = Q \text{ total} \times \frac{I (R001)}{I (\text{sum of R001- R004, R008,R009})}$$

Q (R001) = the ink consumed by emission unit R001 for the month.

Q (total) = the total ink used by the permittee for the month.

I (R001) = the total impressions for emissions unit R001 for the month.

I (sum of R001-R004, R008 and R009) = the total impressions for emissions units R001, R002, R003, R004, R008, and R009 for the month.

## F. Miscellaneous Requirements

1. If probable cause exist indicating that any of the emissions units R001, R002, R003, R004, R008, and R009 are causing or contributing to a nuisance in violation of Ohio Administrative Code rule 3745-15-07, the owner or operator of these emissions units shall be required to submit and implement a control program which will bring this emissions unit into compliance.
2. The following terms and conditions shall supersede all the air pollution control requirements

**Quebecor World Red Bank Division**

**PTI Application: 14-04560**

**Modif**

**Facility ID: 1431070458**

Emissions Unit ID: **R008**

contained in the modification to permit to install 14-2849 issued for emissions units R001, R002, R003, R004, R008, and R009 on January 4, 1996.

Special Terms and Conditions A-F

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-21-07(G)
R009 - 5-unit Hantscho HWOPL with thermal oxidizer (modification)	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11
	OAC rule 3745-31-05(D)	OAC rule 3745-17-07(A)

Quebec

PTI A

Modification Issued: 2/26/2002

Emissions Unit ID: **R009**

Applicable Emissions  
Limitations/Control Measures

Dryer and oxidizer emissions  
combined:

0.3 lb/MMBtu NO<sub>x</sub>,  
22.6 TPY NO<sub>x</sub>\*

0.07 lb/MMBtu CO,  
5.6 TPY CO\*

0.05 lb/MMBtu SO<sub>2</sub>,  
2.0 TPY SO<sub>2</sub>\*

2.2 TPY PM/PM<sub>10</sub>\*

56.1 TPY OC per press

\* For emissions units R001, R002,  
R003, R004, R008 and R009  
combined.

See term and condition A.2.a and  
A.2.b.

See term and condition A.2.c,  
A.2.d., A.2.e, A.2.h and B.3.

Exempt see term B.1.

0.551 lb/hour PM/PM<sub>10</sub>

See term and condition A.2.g.

**2. Additional Terms and Conditions**

**2.a** Combined organic compound emissions from the oxidizer exhaust of emissions units

R001, R002, R003, R004, R008 and R009 shall not exceed 30.37 pounds per hour.

- 2.b** Daily organic compound emissions from each emissions unit R001, R002, R003, R004, R008 and R009 shall not exceed 307.5 pounds per day, which includes the limits of 121.5 pounds per day from the oxidizer exhaust and 186.0 pounds per day from the fugitive emissions associated with the fountain solutions, blanket wash (including rubber revitalizer), metering roller cleaner, and non piling additive.
- 2.c** Annual combined organic compound emissions from all materials employed on emission units R001, R002, R003, R004, R008 and R009 shall not exceed 98.6 tons per year, based on a rolling 12-month summation. The permittee has existing records of the amount of OC emissions.
- 2.d** The following Organic Compound (OC) contents shall not be exceeded for all emission units:
- |    |                         |                 |
|----|-------------------------|-----------------|
| a. | Ink                     | 50% by wt. OC   |
| b. | Adhesives               | 1.0 % by wt. OC |
| c. | Blanket wash            | 100% by wt. OC  |
| d. | Metering Roller Cleaner | 100% by wt. OC  |
| e. | Fountain solution No.1  | 30% by wt. OC   |
| f. | Fountain solution No.2  | 85% by wt. OC   |
| g. | Non piling additive     | 50% by wt. OC   |
- 2.e** The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 90.0 % (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002, R003, R004, R008, and R009.
- 2.f** The hourly and/or daily emission limitation(s) outlined in this permit are based upon the maximum hourly production/application rate at 24 hours per day. Therefore, no hourly and/or daily records are required.
- 2.g** Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004, R008 and R009 shall not exceed 20% percent opacity, as a six-minute average, except as specified by rule.
- 2.h** The emissions of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from this facility 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

determined on a rolling 12-month summation.

- 2.i** The OC emission limitations in this permit are based on the maximum organic compound content limits in Term A.2.d., the maximum allowable material usage limits in Term B.3., and the thermal oxidizer OC control efficiency in Term A.2.e. In addition, emissions are based on the following assumptions:

Material	<u>% Web Retention</u>	<u>Oven Capture % Efficiency</u>	<u>% Fugitive</u>
Presses R001 - R004, R008, R009			
Ink	20	100	0
Adhesives	0	100	0
Blanket Wash*	0	40	60
Fountain Sol'n	0	70	30
Non-piling Additive	0	70	30

Metering roller cleaner emissions are based on 25% retention in the rags and 75% fugitive emissions.

\* Based on automatic blanket wash.

## B. Operational Restrictions

- The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.
- The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002, R003, R004, R008, and R009 are in operation shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent performance test that demonstrated compliance with the 90.0% overall VOC destruction efficiency requirement.
- Coating and cleanup material usages for emissions units R001, R002, R003, R004, R008 and R009 combined shall not exceed the following limits:

	Material Usages
	<u>Lbs/yr**</u>
a. Inks	2,100,000

b.	Blanket wash***	120,000
c.	Metering Roller Cleaner	12,000
d.	Fountain solution No. 1*	130,000
e.	Fountain solution No. 2*	16,000
f.	Non Piling Additive	20,000
g.	Adhesives	100,000

\* This usage limit is for the fountain solution concentrate.

\*\* Compliance with the annual usage limitations shall be determined on a rolling, 12-month summation.

\*\*\* Blanket wash includes rubber revitalizer.

4. To ensure an evaporative OC/VOC loss from the hand cleanup process of no more than 50% (by weight) from solvents having a vapor pressure less than 10 mmHg (0.19 psia) at 20 degrees Celsius (68 degrees Fahrenheit), all rags used in the cleanup process shall be stored in closed containers.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for each emissions unit:
  - a. The company identification of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit.
  - b. The percent (%) by weight of the organic compound content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for each emissions unit.
  - c. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive employed in each emissions unit. The amount of material allocated to each emissions unit will be based on the number of impressions made at each emissions unit. Example calculations are referenced in term and condition E.8.
  - d. A record of each liquid organic material employed in each emissions unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
  - e. The total rolling, 12-month summation of the ink, adhesive, blanket wash (including

rubber revitalizer), metering roller cleaner, fountain solution, adhesive, and non piling additive in pounds employed for emissions units R001, R002, R003, R004, R008, and R009.

- f. The total rolling, 12-month summation of the controlled Organic Compound (OC) emissions in tons per year from the inks, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive for emissions units R001, R002, R003, R004, R008, and R009.
2. The permittee shall collect and record the following information each month for the entire facility:
    - a. The name and identification number of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive.
    - b. The individual Hazardous Air Pollutant (HAP) content for each HAP of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of individual HAP per pound of concentrated material.
    - c. The total combined HAP content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive in pounds of combined HAPs per pound of concentrated material [sum all the individual HAP contents from (b)].
    - d. The number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additive material employed, as concentrate.
    - e. The total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d)].
    - f. The total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d)].
    - g. The updated rolling, 12-month summation of the individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons.
    - h. The updated rolling, 12-month summation of the combined HAP emissions for all HAP from all coatings and cleanup materials employed, in pounds or tons.

Emissions Unit ID: R009

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when emissions units R001, R002, R003, R004, R008, and R009 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated compliance with the 90.0% overall OC destruction efficiency requirement.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
4. The permit to install for this emissions unit R009 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Glycol ethers

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 22.1

Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 1893.9

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 2881

Pollutant: Naphthalene

TLV (mg/m<sup>3</sup>): 52  
Maximum Hourly Emission Rate (lbs/hr): 0.17  
Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m<sup>3</sup>): 5.4  
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 1238.1

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior to the change.
- The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"
- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### D. Reporting Requirements

1. 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 in emissions units R001, R002, R003, R004, R008, and R009. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify any exceedance of the HAP emissions limitations set forth in term A.2.h. If no exceedances occurred during the reporting period then a report is required stating so.
3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in T&C B.2.
4. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of organic compound emissions in TPY for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
5. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of total usages in pounds from the inks, adhesives, blanket wash(including rubber revitalizer), metering roller cleaner, fountain solution, and non piling additives for all emission units for each calendar month from emissions units R001, R002, R003, R004, R008, and R009 combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
6. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in T&C A.2.d.
7. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## E. Testing Requirements

1. Formulation data or USEPA method 24 (for coatings) or 24A (for flexographic and rotogravure printing lines and related coatings) shall be used to determine the OC contents of the inks and coatings.
2. The OC emissions are calculated by multiplying the percent (%) by weight OC content times the material usage rate times the ink retention consistent with the Ohio EPA Engineering Guide #56 times the control efficiency.
3. Compliance with the visible particulate limitation shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.
4. Compliance with the percent by weight OC content and the usage limitations in pounds will be determined by the recordkeeping in Term C.1.
5. The permittee shall conduct emission testing for the oxidizer for emissions units R001, R002, R003, R004, R008, and R009 in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after issuance of the permit for emissions units R001, R002, R003, R004, R008, and R009.
  - b. The emission testing shall be conducted to demonstrate compliance with the 90.0 % control efficiency limitation for organics.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency.

The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

6. Compliance with the HAP emission limitation will be determined by the record keeping in T&C C.2.
7. Compliance with the PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>X</sub> and CO limits will be determined by multiplying the fuel usage by the AP-42 emission factors taken from USEPA's AP-42, 5th Edition, Section 1.3 and 1.4.
8. Compliance with the recordkeeping requirement of keeping monthly usage records for each emissions unit (Term C.1.c) shall be determined by the following example calculation:

$$Q (R001) = Q \text{ total} \times \frac{I (R001)}{I (\text{sum of R001- R004, R008,R009})}$$

Q (R001) = the ink consumed by emission unit R001 for the month.

Q (total) = the total ink used by the permittee for the month.

I (R001) = the total impressions for emissions unit R001 for the month.

I (sum of R001-R004, R008 and R009) = the total impressions for emissions units R001, R002, R003, R004, R008, and R009 for the month.

## F. Miscellaneous Requirements

1. If probable cause exist indicating that any of the emissions units R001, R002, R003, R004, R008, and R009 are causing or contributing to a nuisance in violation of Ohio Administrative Code rule 3745-15-07, the owner or operator of these emissions units shall be required to submit and implement a control program which will bring this emissions unit into compliance.
2. The following terms and conditions shall supersede all the air pollution control requirements

**Quebecor World Red Bank Division**

**PTI Application: 14-04560**

**Modif**

**Facility ID: 1431070458**

Emissions Unit ID: **R009**

contained in the modification to permit to install 14-2849 issued for emissions units R001, R002, R003, R004, R008, and R009 on January 4, 1996.

Special Terms and Conditions A-F