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Facility Name: **World Color**  
Application Number: **14-4569**  
Date: **May 12, 1999**

#### **GENERAL PERMIT CONDITIONS**

#### **TERMINATION OF PERMIT TO INSTALL**

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

#### **NOTICE OF INSPECTION**

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

#### **CONSTRUCTION OF NEW SOURCES**

The proposed source(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 Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(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 Ohio Administrative Code (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

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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 applicable standards.

### **PERMIT TO INSTALL FEE**

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

### **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.

### **APPLICABILITY**

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

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### **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.

### **PERMIT TO OPERATE APPLICATION**

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

### **SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION**

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **World Color** located in **Hamilton** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Ohio  
EPA  
Source  
Number

R001  
Modifi-  
cation

R001  
(Mod)  
Cont'd

R002  
Modifi-  
cation

R003  
Modifi-  
cation

R003  
(Mod)  
Cont'd

R004  
Modifi-  
cation

R004  
(Mod)  
Cont'd

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R008 Modifi- cation				oxidizer, NO. 526
		Source Identification <u>Description</u>	5-unit Hantscho HWOPL with thermal oxidizer, NO. 538	
		8-unit Hantscho HWOPL with thermal oxidizer, NO. 836		
R008 (Mod) Cont'd	R007 Modifi- cation			
	R007 (Mod) Cont'd			8-unit Harris HWOPL with thermal oxidizer, NO. 838A
R009 Modifi- cation			5-unit Royal Zenith HWOPL with thermal	

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Heidelberg sheetfed  
offset press

5-unit  
Hantscho  
HWOPL with  
6-unit thermal  
Hantsch oxidizer, NO.  
o 536  
HWOPL  
with  
thermal  
oxidize  
r, NO.  
636

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
	BAT <u>Determination</u>			Oxidizer with a control efficiency equal to or greater than 90.0 percent; emissions and usage limitations; compliance with the air toxics policy
	Oxidizer with a control efficiency equal to or greater than 90.0 percent; emissions and usage limitations; compliance with the air toxics policy	Oxidizer with a control efficiency equal to or greater than 90.0 percent; emissions and usage limitations; compliance with the air toxics policy	Oxidizer with a control efficiency equal to or greater than 90.0 percent; emissions and usage limitations; compliance with the air toxics policy	Oxidizer with a control efficiency equal to or greater than 90.0 percent; emissions and usage limitations; compliance with the air toxics policy

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Oxidize r with a control efficie ncy equal to or greater than 90.0 percent ; emissio ns and usage limitat ions; complia nce with the air toxics policy	Oxidizer with a control efficiency equal to or greater than 90.0 percent; emissions and usage limitations; compliance with the air toxics policy	Emissions and usage limitations; compliance with the air toxics policy		

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			3745-31-05 (BAT)	
		3745-15-07		
	Applicable Federal & OAC Rules	3745-31-05 (BAT)		
3745-31-05 (BAT)				
				3745-21-07 (G) *
				3745-17-11
			3745-21-07 (G) *	3745-17-07 (A)
			3745-17-11	3745-15-07
		3745-21-07 (G) *	3745-17-07 (A)	3745-31-05 (BAT)
3745-21-07 (G) *		3745-17-11	3745-15-07	
3745-17-11		3745-17-07 (A)	3745-31-05 (BAT)	
3745-17-07 (A)		3745-15-07		

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
		Permit Allowable Mass Emissions and/or Control/Usage Requirements	Dryer and oxidizer emissions combined: 0.3 pound/MMBtu NO <sub>x</sub>	5.6 TPY CO 0.05 pound/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
	3745-21-07 (G) *	See Term and Condition A.1., A.2., A.4., A.5., and A.6.	0.07 pound/MMBtu CO 5.6 TPY CO	Less stringent than BAT
3745-21-07 (G) *	3745-17-07 (A)	Dryer and oxidizer emissions combined: 0.3 pound/MMBtu NO <sub>x</sub>	SO <sub>2</sub> 2.0 TPY SO <sub>2</sub> 2.2 TPY PM/PM <sub>10</sub>	0.551 pound/hour PM/PM <sub>10</sub>
3745-17-11	3745-15-07	0.07 pound/MMBtu CO 5.6 TPY CO	56.1 TPY OC per press	See Term and Condition A.7.
3745-17-07 (A)	3745-31-05 (BAT)	0.05 pound/MMBtu SO <sub>2</sub> 2.0 TPY SO <sub>2</sub> 2.2 TPY PM/PM <sub>10</sub>	Less stringent than BAT	See Term and Condition F.1.
3745-15-07		56.1 TPY OC per press	0.551 pound/hour PM/PM <sub>10</sub>	See Term and Condition A.1., A.2., A.4., A.5., and A.6.
3745-31-05 (BAT)	3745-21-07 (G) *	Less stringent than BAT	See Term and Condition A.7.	Dryer and oxidizer emissions combined: 0.3 pound/MMBtu NO <sub>x</sub>
	3745-17-11	0.551 pound/hour PM/PM <sub>10</sub>	See Term and Condition F.1.	22.6 TPY NO <sub>x</sub> 0.07 pound/MMBtu CO
	3745-17-07 (A)	See Term and Condition A.7.	A.2., A.4., A.5., and A.6. Dryer and oxidizer emissions combined: 0.3 pound/MMBtu NO <sub>x</sub>	5.6 TPY CO 0.05 pound/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
	3745-15-07	See Term and Condition A.1., A.2., A.4., A.5., and A.6.	0.07 pound/MMBtu CO	Less stringent

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
than BAT	0.3 pound/MMBtu	NO <sub>x</sub> 22.6 TPY NO <sub>x</sub>		
0.551	22.6 TPY NO <sub>x</sub>	0.07 pound/MMBtu CO		
pound/h	0.07	5.6 TPY CO		
our	pound/MMBtu CO	0.05 pound/MMBtu SO <sub>2</sub>		
PM/PM <sub>10</sub>	5.6 TPY CO	2.0 TPY SO <sub>2</sub>		
See	0.05	2.2 TPY PM/PM <sub>10</sub>		
Term	pound/MMBtu	56.1 TPY OC per		
and	SO <sub>2</sub>	press		
Conditio	2.0 TPY SO <sub>2</sub>	Less stringent than		
on A.7.	2.2 TPY PM/PM <sub>10</sub>	BAT		
See	56.1 TPY OC	0.551 pound/hour		
Term	per press	PM/PM <sub>10</sub>		
and	Less stringent			
Conditio	than BAT	See Term and		
on F.1.	0.551	Condition A.7.		
See	pound/hour			
Term	PM/PM <sub>10</sub>	See Term and		
and	See Term and	Condition F.1.		
Conditio	Condition A.7.	See Term and		
on		Condition A.1.,		
A.1.,	See Term and	A.2., A.3., A.4.,		
A.2.,	Condition F.1.	A.5., and A.9.		
A.4.,		4.64 TPY OC		
A.5.,	See Term and	Less stringent than		
and	Condition	BAT		
A.6.	A.1., A.2.,			
Dryer	A.4., A.5.,	0.551 pound/hour		
and	and A.6.	PM/PM <sub>10</sub>		
oxidize	Dryer and			
r	oxidizer	See Term and		
emissio	emissions	Condition A.7.		
ns	combined:			
combine	0.3	See Term and		
d:	pound/MMBtu	Condition F.1.		

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\* The emission limitation established by this rule is less stringent than those established by OAC Rule 3745-31-05 (BAT).

#### SUMMARY

#### TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
Organic Compound	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

#### REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Hamilton County Dept. of Env. Services, 1632 Central Parkway, Cincinnati, OH 45210.**

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#### **WASTE DISPOSAL**

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

#### **MAINTENANCE OF EQUIPMENT**

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

#### **MALFUNCTION/ABATEMENT**

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Hamilton County Dept. of Env. Services, 1632 Central Parkway, Cincinnati, OH 45210.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

#### **AIR POLLUTION NUISANCES PROHIBITED**

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

#### **ADDITIONAL SPECIAL TERMS AND CONDITIONS**

##### **A. Applicable Emission Limitations and/or Control Requirements**

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1. 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. Daily organic compound emissions from each emissions units 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.
  3. Daily organic emissions from emissions unit R007 shall not exceed 36.5 pounds per day associated with the inks, fountain solution, aqueous coatings, blanket wash and metering roller cleaner.
  4. Annual combined organic compound emissions from all materials employed on emission units R001, R002, R003, R004, R007, 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.
  5. The following Organic Compound (OC) contents shall not be exceeded for all emission units:
    - a. Ink 50 percent by wt. OC
    - b. Adhesives 1.0 percent by wt. OC
    - c. Blanket wash 100 percent by wt. OC
    - d. Metering Roller Cleaner 100 percent by wt. OC
    - e. Fountain solution No.1 20 percent by wt. OC
    - f. Fountain solution No.2 85 percent by wt. OC
    - g. Sheetfed Fountain Solution No. 3\* 35 percent by wt. OC
    - h. Non piling additive 50 percent by wt. OC
    - i. Aqueous coatings\* 10 percent by wt. OC
- \* Associated only with emission unit R007.
6. The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 90.0 percent (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.
  7. The hourly and/or daily emission limitation(s) outlined in this permit are based upon the maximum hourly

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production/application rate at 24 hours per day. Therefore, no hourly and/or daily records are required.

8. 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.
9. The emissions [as defined by OAC rule 3745-77-01(BB)] 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.
10. The emissions of PM/PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, and CO from the dryers and thermal oxidizer shall not exceed the following for each emissions unit, R001 - R004, R008, and R009:

	<u>Pound/Hour</u>	<u>TPY</u>
PM/PM <sub>10</sub>	0.5	2.2
NO <sub>x</sub>	4.6	22.6
SO <sub>2</sub>	0.3	2.0
CO	1.2	5.6

11. The OC emission limitations in this permit are based on the maximum organic compound content limits in Term A.5., the maximum allowable material usage limits in Term B.3., and the thermal oxidizer OC control efficiency in Term A.6. In addition, emissions are based on the following assumptions:

<u>Material</u>	Non-piling Additive	<u>% Web Retention</u>	0
Presses R001-R004, R008, R009	Sheetfed Press - R007		95
Ink	Ink Blanket wash**	20	0
Adhesives	Fountain Solution	0	0
Blanket Wash*		0	
Fountain Solution			

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Oven Capture <u>  </u> %	
<u>Efficiency</u>	<u>  </u> % Fugitive

100	0
100	0
40	60
70	30
70	30

0	5
0	100
0	100

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

\* Based on automatic blanket wash.

\*\* Based on manual blanket wash. Manual blanket wash has a 50 percent rag retention based on vapor pressure of less than 10 mm HG.

**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 percent overall VOC destruction efficiency requirement.
3. Coating and cleanup material usages for emissions units

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R001, R002, R003, R004, R008 and R009 combined shall not exceed the following limits:

	Material Usages Pounds/yr**
a. Inks	2,100,000
b. Blanket wash***	120,000
c. Metering Roller Cleaner	12,000
d. Fountain solution No. 1*	50,000
e. Fountain solution No. 2*	50,000
f. Non Piling Additive	20,000
g. Adhesives	100,000

R007 Only (Sheetfed Press)

h. Fountain Solution No. 3	2,200
i. Aqueous coatings	18,000

\* 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 75 percent (by weight) from solvents having a vapor pressure greater than 10 mmHg (0.19 psia) at 20 degrees Celsius (68 degrees Fahrenheit), all rags utilized in the cleanup process shall be stored in closed containers.
5. To ensure an evaporative OC/VOC loss from the hand cleanup process of no more than 75 percent (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 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 non piling additive and aqueous coating employed in each emissions unit;
  - b. the percent (%) by weight of the organic compound

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- content of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution non piling additive and aqueous coating for each emissions unit;
- c. the number of pounds of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution non piling additive and aqueous coating 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 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 non piling additive and aqueous coating in pounds employed for emissions units R001, R002, R003, R004, R007, R008, and R009; and,
  - 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, non piling additive and aqueous coating for emissions units R001, R002, R003, R004, R007, 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, non piling additive and aqueous coating as applied;
    - b. the individual Hazardous Air Pollutant (HAP)

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content for each HAP of each ink, adhesive, blanket wash (including rubber revitalizer), metering roller cleaner, fountain solution non piling additive and aqueous coating 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 non piling additive and aqueous coating 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 non piling additive and aqueous coating material employed as concentrated;
- 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; and,
- h. the updated rolling, 12-month summation of the combined HAP emissions for all HAP from all coatings and cleanup materials employed.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Dept. of Env. Services 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

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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 percent overall OC destruction efficiency requirement; and,
  - 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. 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 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.

**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 this emissions units R001, R002, R003, R004, R007, 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.
2. The permittee shall notify the Hamilton County

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Department of Environmental Services of any exceedance of the HAP emissions limitations set forth in this Permit. The permittee shall submit annual reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year. 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 Additional Special Term and Condition 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, R007, 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 non piling additives and aqueous coatings for all emission units for each calendar month. 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 Additional Special Term and Condition A.5.
7. 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 Hamilton County Dept. of Env. Services; and,

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- 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 Hamilton County Dept. of Env. Services. 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 30, April 30, July 30, and October 30 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).

**E. Compliance Methods/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 No. 56 times the control efficiency.
3. Compliance with the visible emissions limitation in Additional Special Term and Condition A.7 shall be demonstrated by the methods outlined in OAC rule 3745-17-03(B) (1).
4. Compliance with the percent by weight OC content and the usage limitations in pounds will be determined by the recordkeeping in Additional Special Term and Condition 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

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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 percent 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; and,
- 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 Hamilton County Dept. of Env. Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Dept. of Env. Services

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 Hamilton County Dept. of Env. Services refusal to accept the results of the emission test(s).

Personnel from the Hamilton County Dept. of Env. Services 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.

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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 Hamilton County Dept. of Env. Services 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 Hamilton County Dept. of Env. Services.

6. Compliance with the HAP emission limitation will be determined by the recordkeeping in Additional Special Term and Condition 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:

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

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**

1. If probable cause exist indicating that any of the emissions units R001, R002, R003, R004, R007, 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.

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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

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3. The following terms and conditions shall supersede all the air pollution control requirements contained in the permit to install 14-1852 issued for emissions unit R007 on September 27, 1989.
4. This permit allows the use of the coatings and cleanup materials specified by the permittee in the application for PTI number 14-4569. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the organic compound emission limitation(s) specified in this permit was (were) established in accordance with the Ohio EPA's "Air Toxics Policy" and is (are) based on both the coating and cleanup material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with the Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the Screen3 model and a comparison of the predicted 1 hour maximum ground-level concentration to the MAGLC. The following summarizes the results of the modeling for each pollutant:

**Pollutant: Glycol ethers**

**TLV (mg/m3): 121**

**Maximum Hourly Emission Rate (lbs/hr): 5.72**

**Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m3): 1999.4**

**Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 2881**

**Pollutant: Napthalene**

**TLV (mg/m3): 52**

**Maximum Hourly Emission Rate (lbs/hr): 0.027**

**Predicted 1 Hour Maximum Ground-Level Concentration at 26 meters (ug/m3): 5.3**

**Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 1238**

Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the Hamilton County Dept. of Env. Services are required, including the possible issuance of modifications to PTI number

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14-4569 and the operating permit:

- a. any changes in the composition of the coatings or cleanup materials, or the use of new coatings or cleanup 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 specified in the above table;
- b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate, and decreased stack height) that would result in an exceedance of any MAGLC specified in the above table;
- c. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.