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Facility Name: **Cincinnati Color Press, Inc**

Application Number: **14-4606**

Date: **September 2, 1998**

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.

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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 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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The air contaminant emissions units listed below comprise the Permit to Install for **Cincinnati Color Press, Inc** 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	Source Identification Description	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
R001	8-unit heatset web offset press with two 1.735 MMBTU/hour ovens, controlled by regenerative thermal oxidizer.	Thermal oxidizer with a control efficiency equal to or greater than 95 percent and the emissions and usage limitations as outlined in the terms and conditions. Compliance with air toxics policy.	3745-15-07	See Term and Condition F.1.
			3745-17-07	See Term and Condition A.7.
			3745-17-11*	Less stringent
			3745-21-07 (G)*	Less stringent
			3745-31-05	See Term and Condition A.1., A.4., and A.5. 0.1 pound NO _x /MMBTU 1.51 TPY NO _x 0.021 pound CO/MMBTU 0.32 TPY CO 0.0006 pound SO ₂ /MMBTU 0.01 TPY SO ₂
R002	8-unit heatset web offset press with one 1.735 MMBTU/hour oven and one 2.133	Thermal oxidizer with a control efficiency equal to or greater than 95 percent and the emissions and usage limitations as outlined in the	3745-15-07	See Term and Condition F.1.
			3745-17-07	See Term and Condition A.7.
			3745-17-11*	Less stringent

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
R002 Cont'd	MMBTU/hour oven, controlled by regenerative thermal oxidizer.	terms and conditions. Compliance with air toxics policy.	3745-21-07 (G)* 3745-31-05	Less stringent See Term and Condition A.2., A.4., and A.5. 0.1 pound NO _x /MMBTU 1.69 TPY NO _x 0.021 pound CO/MMBTU 0.36 TPY CO 0.0006 pound SO ₂ /MMBTU 0.01 TPY SO ₂
R003	4-unit heatset web offset press with one 2.133 MMBTU/hour oven, controlled by regenerative thermal oxidizer.	Thermal oxidizer with a control efficiency equal to or greater than 95 percent and the emissions and usage limitations as outlined in the terms and conditions. Compliance with air toxics policy.	3745-15-07 3745-17-07 3745-17-11* 3745-21-07 (G)* 3745-31-05	See Term and Condition F.1. See Term and Condition A.7. Less stringent Less stringent See Term and Condition A.3., A.4., and A.5. 0.1 pound NO _x /MMBTU 0.93 TPY NO _x 0.021 pound CO/MMBTU 0.2 TPY CO 0.0006 pound SO ₂ /MMBTU 0.01 TPY SO ₂

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

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SUMMARY
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
Organic Compound	8.4
PM	0.49**
SO ₂	0.03
NO _x	4.13
CO	0.88
PM ₁₀	0.49**

* Assume PM = PM₁₀

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.**

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.

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.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

A. Applicable Emission Limitations and/or Control Requirements

1. a. Organic compound emissions from the thermal oxidizer exhaust of emissions unit R001 shall not exceed 11.2 pounds per day and 2.0 tons per year.
- b. Total organic compound emissions from emissions unit R001 (including organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash) shall not exceed 19.3 pounds per day and 3.1 tons per year.
- c. Particulate emissions from emissions unit R001 shall not exceed 1.0 pound per day and 0.18 ton per year.
2. a. Organic compound emissions from the thermal oxidizer exhaust of emissions unit R002 shall not exceed 11.2 pounds per day and 2.0 tons per year.
- b. Total organic compound emissions from emissions unit R002 (including organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash) shall not exceed 19.4 pounds per day and 3.1 tons per year.

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- c. Particulate emissions from emissions unit R002 shall not exceed 1.11 pounds per day and 0.2 ton per year.
 3.
 - a. Organic compound emissions from the thermal oxidizer exhaust of emissions units R003 shall not exceed 5.77 pounds per day and 1.03 tons per year.
 - b. Total organic compound emissions from emissions unit R003 (including organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash) shall not exceed 13.9 pounds per day and 2.2 tons per year.
 - c. Particulate emissions from emissions unit R003 shall not exceed 0.61 pound per day and 0.11 ton per year.
 4. The following Organic Compound (OC) contents shall not be exceeded for emission units R001, R002 and R003:
 - a. Ink 42 percent by wt. OC
 - b. Fountain solution 6.1 percent by wt. OC
 - c. Blanket wash 96.2 percent by wt. OC
 5. The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 95 percent (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002 and R003.
 6. 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.
 7. Visible particulate emissions from any stack associated with emissions units R001, R002 and R003 shall not exceed 20% percent opacity, as a six-minute average, except as specified by rule.

B. Operational Restrictions

1. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002 and R003 are in operation shall not be less than 1600 degrees Fahrenheit.

2. Material usages for emissions units R001 shall not exceed the following limits:

	Material Usages <u>Lbs/yr</u>
a. Inks	224,870
b. Fountain solution	9,000
c. Blanket wash	3,450

3. Material usages for emissions units R002 shall not exceed the following limits:

	Material Usages <u>Lbs/yr</u>
a. Inks	224,870
b. Fountain solution	9,000
c. Blanket wash	3,450

4. Material usages for emissions units R003 shall not exceed the following limits:

	Material Usages <u>Lbs/yr</u>
a. Inks	112,435
b. Fountain solution	9,000
c. Blanket wash	3,450

5. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.

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 number of each ink, fountain solution and blanket wash employed in each emissions unit;
- b. the percent (%) by weight of the organic compound content of each ink, fountain solution and blanket wash for each emissions unit;
- c. the number of pounds of each ink, fountain solution and blanket wash employed in each emissions unit; and,

- 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).
2. 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 and R003 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.
3. 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 less than 1600 degrees Fahrenheit; 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.
3. 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 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.1.

2. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in Additional Special Term and Condition A.4.
3. The permittee shall submit annual reports which specify the total usages in pounds from the inks, fountain solutions, and blanket wash (cleanup) for emission units R001, R002 and R003. These reports shall be submitted by February 15 of each year and shall cover the previous 12 calendar months.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each day during which any photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)) was employed in emissions units R001, R002, R003, R004 and R005. 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.
5. 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,
 - 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 methods 24 (for coatings) or 24A (for flexographic and rotogravure printing inks and related coatings) shall be used to determine the OC content 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, or have conducted, emission testing for the thermal oxidizer for emissions units R001, R002 and R003 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 and R003;
 - b. the emission testing shall be conducted to demonstrate compliance with the 95 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. Service's refusal to accept the results of the emission test(s).

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

F. Miscellaneous

1. If probable cause exist indicating that any of the emissions units R001, R002 and R003, 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. This permit allows the use of the coatings and cleanup materials specified by the permittee in the application for PTI number 14-4606. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the organic compound emission limitation(s) specified in this permit were established in accordance with the Ohio EPA's "Air Toxics Policy" and 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

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Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the Screen 3 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: stoddard solvent (petroleum distillates)

TLV (mg/m3): 525

Maximum Hourly Emission Rate (lbs/hr):(R001, R002, R003)1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 12,500

Pollutant: ethylene glycol

TLV (mg/m3): 100

Maximum Hourly Emission Rate (lbs/hr): (R001, R002, R003)1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 2381

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. Service are required, including the possible issuance of modifications to PTI number 14-4606 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; and,
- c. any change to the emissions unit or its method of operation that would either require an increase in

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the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.