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Facility Name: **Cyril-Scott Company**

Application Number: **01-7430**

Date: **August 19, 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.

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

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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 **Cyril-Scott Company** located in **Fairfield** 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
K016	Nebiolo 3 "FIMAG" heatset web offset printing press w/oven and catalytic incinerator	Compliance w/the permitted emission limits and applicable rules; use of a catalytic incinerator w/minimum DRE of 95%; overall reduction of OC emissions by 93%.	3745-31-05	.072 lb PM/hr .31 ton PM/yr .0036 lb SO ₂ /hr .016 ton SO ₂ /yr 4.62 lb OC/hr 20.3 ton OC/hr .6 lb No _x /hr 2.63 ton No _x /yr .126 lb CO/hr .55 ton CO/yr
			3745-17-07	opacity shall not exceed 20% as a six minute average
			3745-17-11	The limits established by BAT are more stringent than this rule
			3745-21-07 (G)(3)	The limits established by BAT are more stringent than this rule
				See Additional Special Terms and Conditions

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SUMMARY
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
PM	.31
SO ₂	.016
OC	20.3
No _x	2.63
CO	.55

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 **Central District Office, 3232 Alum Creek Drive, Columbus, Ohio 43207-3417.**

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. Operational Restrictions

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 650 degrees Fahrenheit. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 280 degrees Fahrenheit.
2. Limitations for SO₂, NO_x and CO reflect the unit's potential to emit based on AP-42 emission factors. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

B. Monitoring and Record Keeping Requirements

1. The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information each day:
 - a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was less than 650 degrees Fahrenheit;
 - b. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 280 degrees Fahrenheit; and,

- c. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
3. The permittee shall collect and record the following information for each day for the coating operation:
 - a. the company identification for each coating and cleanup material employed;
 - b. the number of gallons of each coating and cleanup material employed;
 - c. the organic compound content of each coating and cleanup material, in pounds per gallon;
 - d. the total uncontrolled organic compound emission rate for all coatings and cleanup materials, in pound per day;
 - e. the total controlled organic compound emission rate for all coatings and cleanup materials, in pounds per day (i.e., the value from (d) multiplied by the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).
 - f. the total number of hours the emissions unit was in operation; and,
 - g. the average hourly controlled organic compound emission rate for all coatings and cleanup materials, i.e., (d)/(e), in pounds per hour (average).

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.]

4. * Per DAPC guidance, the following assumptions will be used in calculating the OC emissions for emissions unit K016: 20 percent (by weight) of the solvent in the inks is retained in the web after the dryer. The remaining 80 percent (by weight) of the OCs in the inks is vented to the catalytic incinerator. 30 percent of the fountain solution emissions is fugitive, and 70 percent is vented to the catalytic incinerator. For blanket wash systems, 50 percent of the solvent is fugitive, and 50 percent is

retained in the clothes. For the VOC vented to the incinerator and generated by the ink and the fountain solution, a capture efficiency of 99% shall be used for the calculations.

C. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time when the emissions unit was in operation during which the average temperature of the exhaust gases immediately before the catalyst bed or the average temperature difference across the catalyst bed does not comply with the temperature limitations specified above.
2. The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day during which the average hourly total controlled organic compound emissions exceeded 4.62 pounds per hour, and the actual average hourly organic compound emissions for each such day.

The permittee shall also submit annual reports which specify the total organic compound emissions from emissions unit K016 for the previous calendar year. These reports shall be submitted by January 31 of each year.

3. 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 Ohio EPA Central District Office; 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 Ohio EPA Central District Office. 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.)

D. Compliance Determination

1. Compliance with the emission limitations of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation: .072 lbs PM /hr.

Applicable Compliance Method: The permittee shall conduct, or have conducted, emissions testing for this emissions unit to demonstrate compliance with the .072 lbs PM /hr limitation in accordance with the following requirements:

- i. the emission testing shall be conducted within 90 days of issuance of this PTI;
- ii. the following test method(s) shall be employed to determine the controlled mass rate of particulate emissions from this emissions unit: 40 CFR Part 60, Appendix A, Methods 1 through 5; and,
- iii. the test(s) shall be conducted while this emissions unit is operated at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

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and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

Emission limitation: .0036 lb SO₂/hr

Applicable Compliance Method: Compliance with the SO₂ emission limits shall be based upon an emission factor of .6 lb SO₂/million cubic feet(from table 1.4-2 of AP-42,4th edition) and a maximum natural gas consumption of 6000 CFH(from the oven and incinerator combined). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6C

Emission limitation: .6 lb NO_x/hr

Applicable Compliance Method: Compliance with the NO_x emission limits shall be based upon an emission factor of .6 lb NO_x/million cubic feet(from table 1.4-2 of AP-42,4th edition) and a maximum natural gas consumption of 6000

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CFH (from the oven and incinerator combined). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7E

Emission limitation: .126 lb CO/hr

Applicable Compliance Method: Compliance with the CO emission limits shall be based upon an emission factor 21 lbs CO/million cubic feet (from table 1.4-2 of AP-42, 4th edition) and a maximum natural gas consumption of 6000 CFH (from the oven and incinerator combined). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10

Emission limitation: 4.62 lb VOC/hr and 20.3 tons VOC/yr

Applicable Compliance Method: Compliance with the 4.62 lb VOC/hr emission limit shall be based upon the required DRE testing required in these special terms and conditions, an assumed capture efficiency of 99% (for the VOC vented to the incinerator and generated by the ink and the fountain solution,) and the emission calculation methodology specified in II.D above.

Emission limitation: 95% DRE

Applicable Compliance Method: The permittee shall conduct, or have conducted, emissions testing for this emissions unit to demonstrate compliance with the 95 % minimum DRE requirement in accordance with the following requirements:

- iv. the emission testing shall be conducted within 90 days of issuance of this PTI;
- v. the following test method(s) shall be employed to determine the destruction and removal

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efficiency of the control device controlling organic compound emissions from this emissions unit: 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A, as appropriate; and,

- vi. the test(s) shall be conducted while this emissions unit is operated at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

Emission Limitation: Opacity shall not exceed 20% opacity as a six minute average.

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Applicable Compliance Method: Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

Emission limitation: 93% overall control of OC emissions

Applicable Compliance Method: Compliance shall be determined through the emission calculation methodology specified in II.D above, the DRE emissions testing required by these terms and conditions and an assumed capture efficiency of 99%(for the VOC vented to the incinerator and generated by the ink and the fountain solution,). If required, the permittee shall demonstrate compliance with the overall control requirement through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, 25 r 25A, and 40 CFR Part 51, Appendix M, Method 204.

E. Miscellaneous Requirements

1. This PTI replaces PTI 01-2523 as issued on May 2, 1990.