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Facility Name: **Carrollton Graphics Inc**

Application Number: **17-1624**

Date: **February 3, 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 & 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 **Carrollton Graphics Inc** located in **Carroll** 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.

<u>Ohio EPA Source Number</u>	<u>Source Identification</u>	<u>Source Identification Description</u>
K008	K009	Heatset Web offset lithographic printing line HV 3. Includes 4-color printing press and gas-fired dryer oven rated 2.0 MMBTU per hour

K008 cont'd

K009 cont'd

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Heatset Web offset lithogr aphic printin g line HV 4. Include s 4-color printin g press and gas-fir ed dryer oven rated 2.0 MMBTU per hour				

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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>
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BAT
Determination

1. Use catalytic incinerator as an OC control device;

2. Employ non-photochemically reactive material only.

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				3745-21-07 (G)
	Applicable Federal & <u>OAC Rules</u>	3745-17-11		
3745-31-05				
		3745-17-07		
		3745-21-07 (G)		
			3745-17-11	
		3745-31-05		
			3745-17-07	

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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>
Permit Allowable Mass Emissions and/or Control/Usage Requirements	pounds per hour and 18.25 tons per year. Maximum 1.07 tons per year of fugitive OC emissions. Visible particulate emissions from stack shall not exceed 5% opacity as 6-minute average.	based on this rule is less stringent than the limit based upon OAC rule 3745-31-05. Exempt. See Additional Special Term and Condition B.1. Compliance with a minimum 90% (by weight) organic material destruction efficiency at maximum operating rate. OC emissions from stack should not exceed 4.167 pounds per hour and 18.25 tons per year. Maximum 1.07 tons per year of fugitive OC emissions. Visible particulate emissions from stack shall not exceed 5% opacity as a 6-minute average. See Additional Special Term and	Condition A.2. 1.04 lbs/hour and 4.56 tons/year of particulate emissions from emissions units K008 and K009. The limit based on this rule is less stringent than the limit based upon OAC rule 3745-31-05. Exempt. See Additional Special Term and Condition B.1.	
OC emissions from stack should not exceed 4.167	1.04 lbs/hour and 4.56 tons/year of particulate emissions from units K008 and K009. The limit	See Additional Special Term and		

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SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
Organic Compounds	38.64
particulate	4.56

PERFORMANCE TEST REQUIREMENTS

The permittee shall conduct, or have conducted, performance testing on the air contaminant source(s) in accordance with procedures approved by the Agency. Two copies of the written report describing the test procedures followed and the results of such tests shall be submitted and signed by the person responsible for the test. The Director, or an Ohio EPA representative, shall be allowed to witness the test, examine testing equipment, and require the acquisition or submission of data and information necessary to assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or the performance of the control equipment.

- A. A completed Intent to Test form shall be submitted to the Ohio EPA, Northeast District Office, 2110 E. Aurora Road, Twinsburg, Ohio 44087 where the original permit application was filed. This notice shall be made 30 days in advance and shall specify the source operating parameters, the proposed test procedures, and the time, date, place and person(s)

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conducting such tests.

- B. Two copies of the test results shall be submitted within 30 days after the completion of the performance test.
- C. Tests shall be performed for the following source(s) and pollutant(s):

<u>Source</u>	<u>Pollutant(s)</u>
K008, K009	OC, PM

RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Ohio EPA, Northeast District Office, 2110 E. Aurora Road, Twinsburg, Ohio 44087.**

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

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reported immediately to the **Ohio EPA, Northeast District Office, 2110 E. Aurora Road, Twinsburg, Ohio 44087.**

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.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

A. Applicable Emission Limitations and/or Control Requirements:

1. See Air Emission Summary Permit Allowable Mass Emissions and/or Control & Usage Requirements.
2. Particulate emissions, generated by operating these emissions units, consist of condensed organic materials and other particulates.
 - a. organic materials which do not condense at a temperature below 248 plus 25 degrees Fahrenheit (the prescribed Method 5 filter box temperature) are not particulate emissions;
 - b. if visible emissions develop downwind of the stack, these visible emissions should not be included in Method 9 readings and would not be

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subject to visible particulate emissions limitation.

B. Operational Restrictions:

1. The permittee shall only employ non-photochemically reactive materials, as defined by OAC rule 3745-21-01, including all inks, fountain solutions and cleanup materials in each of the emissions units.
2. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions units are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions units were in compliance.

C. Monitoring and/or 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 units were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;

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- b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit(s) was in operation.
3. The permittee shall have the catalytic incinerator inspected every six months using preventive maintenance procedures recommended by the equipment manufacturer. Each inspection shall include a written report identifying any needed repairs to the catalytic incinerator. If repairs are needed, the emissions units associated with this catalytic incinerator shall not be operated if the operation would result in any exceedance of the control efficiency and temperature requirement of the catalytic incinerator. These repairs shall be completed within 30 days of the inspection. If a time period longer than 30 days is needed to complete the repairs, the Ohio EPA, Northeast District Office shall be notified in writing. This notice shall list the repairs needed and the reason(s) the repairs could not be accomplished within the required time period. All inspection and repair reports shall be kept by the permittee for a period of 5 years and shall be made available to the Director (the Ohio EPA, Northeast District Office) upon request.
4. The permittee shall collect and record the following information each month for emissions units K008 and K009:
 - a. the name and identification of each ink, each fountain solution, and each cleanup material employed;
 - b. whether or not each ink, each fountain solution, and each cleanup material is a photochemically reactive material;
 - c. the number of gallons of each ink, each fountain solution, and each cleanup material employed;
 - d. the organic compound content, in pounds per gallon, of each ink, each fountain solution, and each cleanup material;

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- e. the organic compound emissions from each ink, each fountain solution, and each cleanup material, in pounds or tons;
- f. the total organic compound emissions from all the inks, in pounds or tons;
- g. the total organic compound emissions from all the fountain solutions, in pounds or tons; and,
- h. the total organic compound emissions from all the cleanup materials, in pounds or tons.

(Note: This information does not have to be kept on a line-by-line basis.)

D. 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 does not comply with the temperature limitations specified in section B.2 of these additional terms and conditions.
2. The permittee shall submit deviation (excursion) reports that identify each time during which the photochemically reactive material employed in the emissions units, and the actual usage of photochemically reactive material.
3. All the deviation (excursion) reports shall be submit to the Ohio EPA, Northeast District Office, and shall include the probable cause of such deviation and any corrective actions or preventive measures which have been or will be taken. 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 report shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover

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the previous calendar quarter. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06).

E. Testing Requirements and Compliance Method Determinations:

1. Compliance with the emission limitations in these permit shall be determined in accordance with the following method:

- a. Emission Limitation: 90% OC destruction efficiency

Applicable Compliance Method: Compliance shall be determined by the emission testing as specified in section E.2 of these additional terms and conditions.

- b. Emission Limitation: 4.167 lbs/hr of OC from stack for each emissions unit

Applicable Compliance Method: Compliance shall be determined by the emission testing as specified in section E.2 of these additional terms and conditions.

- c. Emission Limitation: 18.25 tons/year of OC from stack for each emissions unit

Applicable Compliance Method: The organic compounds tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitations.

- d. Emission Limitation: 1.07 tons/year of fugitive OC emissions for each emissions unit

Applicable Compliance Method: Compliance shall be determined by the following:

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- i. the record keeping requirement specified in section C.4 of these additional terms and conditions;
- ii. the following factor shall be used to determine the OC fugitive emissions:
 - aa. 20 percent ink oil retention factor for heatset inks retained by the substrate, 80 percent goes to dryer and would be ducted to the catalytic incinerator;
 - ab. 70 percent of the VOC's from alcohol substitute(s) in fountain solution are captured into the press dryer and would be ducted to the catalytic incinerator, 30 percent are fugitive;
 - ac. 40 percent of VOC's from cleaning solvents used with automatic blanket washing equipment (provided that the vapor pressure of the cleaning material is less than 10 mm Hg at 20 degrees Celsius) are captured into the press dryer and would be ducted into the catalytic incinerator, 60 percent are fugitive; and,
 - ad. for hand wash cleanup operations, 50 percent of the cleanup solvent is retained in the cloths and 50 percent is emitted as fugitive, if the cleanup solvent has a vapor pressure of 10 mm Hg or lower at 20 degrees Celsius (68°F) and the cloths are stored in closed containers.
- e. Emission Limitation: 5% opacity as 6-minute average

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Applicable Compliance Method: Compliance shall be determined in accordance with the test method and procedures in OAC rule 3745-17-03 (B) (3).

- f. Emission Limitation: 1.04 lbs/hour of particulate for emissions units K008 and K009

Applicable compliance Method: Compliance shall be determined by emission testing as specified in section E.2 of these additional terms and conditions.

- g. Emission Limitation: 4.56 tons/year of particulate for emissions units K008 and K009

Applicable Compliance Method: The particulate ton per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitations.

- 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. the emission testing shall be conducted within 3 months after issuance of the permit; and,
 - b. the emission testing shall be conducted to demonstrate compliance with:
 - i. allowable mass emission rate for particulate;
 - ii. the minimum organic compounds destruction efficiency at maximum operating rate; and,
 - iii. allowable mass emission rate for organic compounds.

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c. the following test method(s) shall be employed to demonstrate compliance:

i. for allowable particulate mass emission rate: Method 5 (front half only) of 40 CFR Part 60, Appendix A;

ii. for organic material destruction efficiency (i.e., percent reduction in mass emissions between the inlet and outlet of the control

system) and allowable organic compounds mass emission rate: A combined USEPA test Method 5 and Method 25, 40 CFR Part 60, Appendix A, as described below:

aa. the Combined USEPA Test Method 5 and 25 procedure consists of employing the USEPA Test method 5 front-half filter system to measure the particulate (solids and Condensed organic material) emissions while the VOC is measured in the back-half of the sampling train per the usual USEPA Test method 25 procedures;

ab. the two measurements (in terms of pounds of carbon or pounds of organic material as appropriate) are added together to determine the organic material emission rate (note: based on engineering judgment, the Method 5 front-half measurement for a HWOPL is essentially all organic material);

ac. the particulate and VOC samples should be collected isokinetically with the prob and filter box temperatures set at $250 + 5^{\circ}\text{F}$;

ad. the connecting sample line used to proportionately withdraw the VOC shall also be heated; and,

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ae. the particulate and VOC should then be analyzed in accordance with the procedures specified in USEPA Test Method 5 and 25, respectively.

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 Ohio EPA, Northeast 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, Northeast 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, Northeast District Office's refusal to accept the results of the emission test(s).

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

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F. Miscellaneous Requirements:

1. None.