

Synthetic Minor Determination and/or Netting Determination
Permit To Install 04-01224
NTA Graphics Inc

A. Source Description

NTA Graphics, Inc. currently prints newspaper & advertising inserts. These inserts are made on one Non-Heatset (K001) and four Heatset Web Offset Printing Presses (K002-K005). The Heatset presses are controlled by a regenerative thermal oxidizer for OC. Sources K001-K005 were previously issued PTIs and were Synthetic Minors. This PTI is for the installation of a fifth Heatset line (K006) with its' own regenerative thermal oxidizer and to make the operating restrictions for the new line Federally Enforceable. The material composition and monthly usage for the printing inks, fountain solution and clean-up material will also be restricted by this PTI.

B. Facility Emissions and Attainment Status

Without a Synthetic Minor Determination, this facility would be classified as a major source for OC emissions. The location is in Toledo, OH., Lucas County, which is classified as attainment for ozone. Small amounts of PM, SO₂, NO_x and CO are emitted as products of combustion from the dryers and regenerative thermal oxidizer, but none of these pollutants would classify this facility as major. The portion of Lucas county where this plant is located is classified as Nonattainment for SO₂ and Attainment for OC, NO_x and CO. PM is unclassified.

C. Source Emissions

Operating at 8760 hours per year at the maximum application rate would exceed the limit for Major Source classification and Title V. The company has already accepted operating restrictions for K001-K005 to make them a Synthetic Minor. Therefore, the company has agreed to restricting the OC usage for K006 to the following in order to remain a Non-Title V facility:

K006 (heatset line)

Printing inks: 79,167 lbs/month, with a maximum of 40% VOC by weight.

Fountain solution: 262.5 gals/month, at a maximum of 9% VOC by volume,
and a maximum density of 8.92 lbs/gal.

Clean-up Material: 246.7 gals/month, at a maximum of 97% VOC by volume,
and a maximum density of 6.9 lbs/gal.

These restrictions would allow 21.62 tons/yr OC from K006 and the products of combustion. The total OC emissions from all lines combined would be 97.37

tons/yr. The company would have to do monitoring and perform recordkeeping in order to maintain compliance with these restrictions.

D. Conclusion

Restricting the coating and cleanup solvent usage will limit the annual OC emissions to below the limit for Major Source classification and Title V. Therefore, this PTI is not subject to PSD review.



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

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

Lazarus Gov. Center

**RE: DRAFT PERMIT TO INSTALL
LUCAS COUNTY**

CERTIFIED MAIL

Application No: 04-01224

DATE: 9/14/2000

NTA Graphics, Inc
Gregory Tremonti
5225 Telegraph Rd
Toledo, OH 43612

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$400** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

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

CC: USEPA
MI

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Toledo Metro Area Coun of
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**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 04-01224

Application Number: 04-01224
APS Premise Number: 0448010300
Permit Fee: **To be entered upon final issuance**
Name of Facility: NTA Graphics, Inc
Person to Contact: Gregory Tremonti
Address: 5225 Telegraph Rd
Toledo, OH 43612

Location of proposed air contaminant source(s) [emissions unit(s)]:
**5225 Telegraph Rd
Toledo, Ohio**

Description of proposed emissions unit(s):
Heatset Web Offset Printing Line with Regenerative Thermal Oxidizer.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

NTA Graphics, Inc
PTI Application: 04-01224

Facility ID: 0448010300

Issued: To be entered upon final issuance

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

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

4. Inspections and Information Requests

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

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

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

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

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

10. Public Disclosure

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

11. Applicability

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

12. Best Available Technology

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

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

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, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

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14. Construction Compliance Certification

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

15. Fees

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

B. Permit to Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	21.62
PM	1.7
SO ₂	0.05
CO	7.0
NO _x	8.32

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Emissions Unit ID: K006

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

A. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
K006 - Heatset Web Offset Printing Line with Regenerative Thermal Oxidizer	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-17-10(B)(1)
	OAC rule 3745-18-06(A)
	OAC rule 3745-21-08(B)
	OAC rule 3745-23-06(A) and (B)
	OAC rule 3745-21-07(G)
Regenerative Thermal combustion emissions	Oxidizer OAC rule 3745-31-05(A)(3)

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Applicable Emissions Limitations/Control Measures	exceed 0.020 lb/mmBtu of actual heat input
Use of printing ink(s) and fountain solution(s) that are non-photochemically reactive	Exemption for natural gas
4.53 lbs/hr OC from the regenerative thermal oxidizer	See A.2.a
11.72 tons/yr OC from the regenerative thermal oxidizer as a rolling, 12-month summation	See A.2.a
3.95 lbs/hr OC from the cleanup material	
9.9 tons/yr OC from the cleanup material as a rolling, 12-month summation	
95 percent destruction efficiency for OC for the regenerative thermal oxidizer	
Exempt, see A.2.b	
The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-17-10(B)(1)	
1.7 ton/yr PM	
0.01 lb/hr SO ₂	
0.05 ton/yr SO ₂	
1.9 lbs/hr NO _x	
8.32 tons/yr NO _x	
1.6 lb/hr CO	
7.0 tons/yr CO	
5 percent opacity from the regenerative thermal oxidizer	
See A.2.a	
Particulate emissions shall not	

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Facility ID: 0448010300

Emissions Unit ID: K006

2. Additional Terms and Conditions

- 2.a** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
- 2.b** Exemption from emissions limitations based on the use of non-photochemically reactive materials in inks and fountain solution.

B. Operational Restrictions

- 1.** The permittee shall employ coatings and materials as specified below, based on a volume-weighted average:

Printing inks: 79,167 lbs/month, with a maximum of 40% VOC by weight.

Fountain solution: 262.5 gals/month, at a maximum of 9% VOC by volume.

Clean-up Material: 246.7 gals/month, at a maximum of 97% VOC by volume.

- 2.** The permittee shall burn only natural gas in this emissions units.
- 3.** All printing inks and fountain solutions used shall be non-photochemically reactive.

C. Monitoring and/or Record keeping Requirements

- 1.** The permittee shall collect and record the following information each week for this line:
- a.** the name and identification number of each material employed (i.e., printing inks, fountain solution, clean-up material);
- b.** the percent of VOC employed in either percent by weight or percent by volume as specified in Section B.1. above;

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- c. the amount of each material employed in either pounds or gallons, as specified in Section B.1. above; and,
 - d. A determination of the reactivity of each ink and fountain solution used in this emissions unit, i.e., photochemically reactive or non-photochemically reactive.
2. When a work week encompasses parts of two consecutive calendar months, a proportionate amount of emissions shall be calculated for each month.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature of the exhaust gases from the thermal incinerator when the source is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within plus or minus 1 percent of the temperature being measured or plus or minus 5 degrees, whichever is greater. The temperature monitor and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
4. The permittee shall collect and record the following information each day for the control equipment:
 - a. a log of operating time for the capture (collection) system, control device, monitoring equipment, and the associated sources; and,
 - b. the average temperature of the exhaust gasses from the thermal incinerator during each of the 8 3-hour blocks of time during the day.
5. The permittee shall multiply the lbs per week of each ink times the percent OC of each respective ink and sum the totals to give the lbs/week of OC from the ink. The permittee shall also multiply the gallons per week of fountain solution by the percent OC of the fountain solution to give the lbs/week of OC from the fountain solution. These two numbers shall be added to give the total lbs/week of OC. The total lbs/week of OC is then divided by the operating hours/week to give the lbs/hr of uncontrolled emissions of OC. The uncontrolled lbs/hr of OC is then multiplied by (1.0-the destruction efficiency) of the regenerative thermal oxidizer as measured during the most recent test that demonstrated compliance to record the actual lbs/hr of OC from the regenerative thermal oxidizer.
6. The permittee shall use the lbs/hr of OC emissions multiplied by the hours of operation per month and divided by 2,000 lbs/ton to record the lbs/month of OC emissions.
7. The permittee shall record the tons of OC emissions from the regenerative thermal oxidizer as a

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rolling, 12-month summation.

8. The permittee shall multiply the gallons per week of cleanup material times the percent OC in the cleanup material to give the lbs/week of OC from the cleanup material. The lbs/week of cleanup material shall be divided by the hrs/week of operation to record the lbs/hr OC from the cleanup material.
9. The permittee shall use the lbs/hr of OC emissions from the cleanup material multiplied by the hours of operation per month and divided by 2,000 lbs/ton to give the lbs/month of OC emissions from the cleanup material.
10. The permittee shall record the tons of OC emissions from the cleanup material as a rolling, 12-month summation.
11. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
 - a. All monthly records which show that the material usage or composition exceeds the limit specified in Section B.1. above; and
 - b. All records which show the lbs/hr or tons/yr emissions exceed the allowable limits specified in Section A.1. above.

A copy of such records shall be sent to the City of Toledo, Division of Environmental Services (TDOES) within 45 days after the exceedance occurs.
 - c. All 3-hour blocks of time during which the average temperature of the exhaust gases was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.
2. The permittee shall submit to the City of Toledo, Division of Environmental Services quarterly summaries of these records. These quarterly reports shall be submitted by April 30, July 31, October 31 and January 31, and shall cover the records for the previous calendar quarter.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other

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Facility ID: 0448010300

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than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

4. The permittee shall submit deviation (excursion) reports that identify each day when photochemically reactive ink(s) or fountain solution(s) was (were) used in this emissions unit.

E. Testing Requirements

1. The regenerative thermal oxidizer used for control of K006 shall operate at a minimum of 95% destruction efficiency. This unit shall be tested for destruction efficiency and must meet the 95% minimum and the emission rate of 4.53 lbs/hour of OC, excluding methane which is the sum of the ink, fountain solution and natural gas combustion emissions for K006 and the regenerative thermal

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oxidizer combined. This emission rate shall be calculated by multiplying the inlet mass emission rate for K006 by the destruction efficiency.

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 90 days of initial startup;
 - b. the emission testing shall be conducted to demonstrate compliance with the allowable mass emissions limitations for organic compounds (OC) (excluding methane) along with the destruction efficiency of OC (excluding methane);
 - c. the following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

<u>POLLUTANT</u>	<u>TEST METHOD</u>	<u>LOCATION</u>
OC	25A	40 CFR Part 60, Appendix A
VOC content of coating	24	40 CFR Part 60, Appendix A

To convert a mass emission value from VOC as carbon to VOC, divide the mass emission value of VOC as carbon by the weight fraction of carbon in the average molecular weight of the VOC emission. The determination of this weight fraction of carbon may be based on standard analytical techniques or material formulation data.

- d. the test methods which must be employed to demonstrate compliance with the control efficiency limitation for reducing the emissions of OC (excluding methane) are specified below:

<u>POLLUTANT</u>	<u>TEST METHOD</u>	<u>LOCATION</u>
OC	1or1A	40 CFR Part 60, Appendix A and 60.614
	2,2A,2C,or 2D	40 CFR Part 60, Appendix A and 60.614
	3	40 CFR Part 60, Appendix A and 60.614
	4	40 CFR Part 60, Appendix A and 60.614

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25A

40 CFR Part 60, Appendix A and 60.614

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- e. the test(s) shall be conducted while the emissions unit is operating at its maximum capacity;
- f. the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration of the potential presence of interfering gases.

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

Personnel from the TDOES 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 TDOES 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 TDOES.

3. Compliance with the following emission limitations shall be determined in accordance with the following method(s):

a. Emission Limitation:

Use of printing ink(s) and fountain solution(s) that are non-photochemically reactive.

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of Section C.1. using the definition of photochemically reactive material stated in OAC rule 3745-21-01(C)(5).

b. Emission Limitation:

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4.53 lbs/hr OC from the regenerative thermal oxidizer.

Applicable Compliance Method:

The monitoring and record keeping requirements of Section C.5. shall be an adequate demonstration of compliance.

c. Emission Limitation:

11.72 tons OC from the regenerative thermal oxidizer as a rolling, 12-month summation.

Applicable Compliance Method:

The monitoring and record keeping requirements of Sections C.6. and C.7. shall be an adequate demonstration of compliance.

d. Emission Limitation:

3.95 lbs/hr OC from the cleanup material.

Applicable Compliance Method:

The monitoring and record keeping requirements of Section C.8. shall be an adequate demonstration of compliance.

e. Emission Limitation:

9.9 tons OC from the cleanup material as a rolling, 12-month summation.

Applicable Compliance Method:

The monitoring and record keeping requirements of Sections C.9. and C.10. shall be an adequate demonstration of compliance.

f. Emission Limitation:

95 percent destruction efficiency for OC for the regenerative thermal oxidizer.

Applicable Compliance Method:

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The testing requirements in Sections E.1. and E.2. shall be an adequate demonstration of compliance.

g. Emission Limitation:

0.020 lb/mmBtu PM .

Applicable Compliance Method:

Divide the AP-42 (7/98 Edition) emission factor of 1.9 pounds of PM per million cubic ft of natural gas by an average natural gas higher heating value of 1000 Btus per standard cubic ft of natural gas or use OAC rule 3745-17-03(B)(9).

h. Emission Limitation:

0.01 lb/hr SO₂.

Applicable Compliance Method:

Divide the AP-42 (7/98 Edition) emission factor of 0.6 pound of SO₂ emissions per million cubic ft by an average natural gas higher heating value of 1000 Btus per standard cubic ft natural gas and then multiply that product by 19.0 million Btus per hour (the dryer and regenerative thermal oxidizer burner total) or use OAC rule 3745-18-04(F).

i. Emission Limitation:

1.9 lb/hr NO_x.

Applicable Compliance Method:

Divide the AP-42 (7/98 Edition) emission factor of 100 pounds of NO_x emissions per million cubic ft by an average natural gas higher heating value of 1000 Btus per standard cubic ft natural gas and then multiply that product by 19.0 million Btus per hour (the dryer and regenerative thermal oxidizer burner total) or use Method 7 of 40 CFR Part 60, Appendix A.

j. Emission Limitation:

1.6 lb/hr CO.

Applicable Compliance Method:

Divide the AP-42 (7/98 Edition) emission factor of 84 pounds of CO emissions per million cubic ft by an average natural gas higher heating value of 1000 Btu per standard cubic ft natural gas and then multiply that product by 19.0 million Btus per hour (the dryer and regenerative thermal oxidizer burner total) or use Method 10 of 40 CFR Part 60, Appendix A.

k. Emission Limitation:

7.0 tons CO, 8.32 tons NO_x, 1.7 tons PM and 0.05 ton SO₂ per calendar year.

Applicable Compliance Method:

The combustion of commercially available natural gas in this emissions unit will be considered adequate demonstration of compliance. Maximum burner size and 8,760 hrs/yr of operation were used to establish these limits.

l. Emission Limitation:

5 percent opacity as, a 6 minute average except as provided by rule, from the regenerative thermal oxidizer.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in Section C.11. If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9. Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

m. Emission Limitation:

Exemption for natural gas.

Applicable Compliance Method:

The record keeping requirement in Section C.11. shall be an adequate demonstration of compliance.

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PTI

Emissions Unit ID: **K006****Issued: To be entered upon final issuance****F. Miscellaneous Requirements**

1. This permit allows the use of the materials specified by the permittee in the application. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the petroleum distillate, ethylene glycol n-butyl ether, ethylene glycol, phosphoric acid, xylene, 1,2,4 trimethylbenzene, cumene, trimethylbenzene and aliphatic naphtha emission limitations specified in this permit were established in accordance with the Ohio EPA's "Air Toxics Policy" and are based on both the 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: Petroleum Distillate**TLV (ug/m3): 100,000****Maximum Hourly Emission Rate (lbs/hr): 3.8****Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 1,483****Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 2,300****Pollutant: Ethylene Glycol n-Butyl Ether****TLV (ug/m3): 123,000****Maximum Hourly Emission Rate (lbs/hr): 0.0255****Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 9.27****Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 2,930****Pollutant: Ethylene Glycol****TLV (ug/m3): $(100/42)0.518=1.23 \text{ mg/m}^3=1,230$** **Maximum Hourly Emission Rate (lbs/hr): 0.051****Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 18.54****Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 1,230****Pollutant: Phosphoric Acid****TLV (ug/m3): 1,000****Maximum Hourly Emission Rate (lbs/hr): 0.0255****Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 9.27****Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 24.0**

NTA

PTI

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Pollutant: Xylene**TLV (ug/m3): 441,000****Maximum Hourly Emission Rate (lbs/hr): 0.2****Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 77.25****Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 10,500****Pollutant: 1,2,4 Trimethylbenzene****TLV (ug/m3): 125,000****Maximum Hourly Emission Rate (lbs/hr): 1.16****Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 463.5****Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 2,980****Pollutant: Cumene****TLV (ug/m3): 250,000****Maximum Hourly Emission Rate (lbs/hr): 0.16****Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 61.8****Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 5,950****Pollutant: Trimethylbenzene****TLV (ug/m3): 125,000****Maximum Hourly Emission Rate (lbs/hr): 2.00****Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 772.5****Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 2,980**

NTA Graphics, Inc
PTI / Modification 04 01334
Issue

Facility ID: 0448010300

Emissions Unit ID: K006

Pollutant: Aliphatic Naphtha

TLV (ug/m3): 416,000

Maximum Hourly Emission Rate (lbs/hr): 1.6

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 618.0

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 9,900

2. Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required, including the possible issuance of modifications to this PTI and the operating permit:
 - a. any changes in the composition of the materials, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified above;
 - 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; and,
 - d. any change in the composition of the materials, or use of new materials, that would result in the emission of any of the exempted organic compounds included in the definition of "VOC" [OAC rule 3745-21-01(B)(6)].

NEW SOURCE REVIEW FORM B

PTI Number: 04-01224 Facility ID: 0448010300

FACILITY NAME NTA Graphics, Inc

FACILITY DESCRIPTION Heatset Web Offset Printing Line with Regenerative Thermal Oxidizer CITY/TWP Toledo

SIC CODE 2752 SCC CODE 40500504 EMISSIONS UNIT ID K006

EMISSIONS UNIT DESCRIPTION Baker-Perkins G-25 Heatset Web Offset Printing Line with Regenerative Thermal Oxidizer

DATE INSTALLED 09/00

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	N/A	0.020 lb/MMBtu	1.7	0.020 lb/MMBtu	1.7
PM ₁₀	Unclassified	N/A	N/A	N/A	N/A
Sulfur Dioxide	Non-Attainment	0.01 lb/hr	0.05	0.01 lb/hr	0.05
Organic Compounds	Attainment	4.53 lb/hr oxidizer 3.95 lb/hr cleanup	11.72 tpy oxidizer 9.9 tpy cleanup	4.53 lb/hr oxidizer 3.95 lb/hr cleanup	11.72 tpy oxidizer 9.9 tpy cleanup
Nitrogen Oxides	Attainment	1.9 lb/hr	8.32	1.9 lb/hr	8.32
Carbon Monoxide	Attainment	1.6 lb/hr	7.0	1.6 lb/hr	7.0
Lead	Attainment	N/A	N/A	N/A	N/A
Other: Air Toxics	Unclassified				

APPLICABLE FEDERAL RULES:

NSPS? NO NESHAP? NO PSD? NO OFFSET POLICY? NO

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**Enter Determination** Limits on ink and fountain solution organic compound content. Throughput restrictions on ink, fountain solution and cleanup material. 95% destruction efficiency for regenerative thermal oxidizer.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? YES

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ 400,000

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES NO

IDENTIFY THE AIR CONTAMINANTS:

Petroleum Distillate, Ethylene Glycol n-Butyl Ether, Ethylene Glycol, Phosphoric Acid, Xylene, 1,2,4 Trimethylbenzene, Cumene, Trimethylbenzene and Aliphatic Naphtha.

NEW SOURCE REVIEW FORM B

PTI Number: 04-01224 Facility ID: 0448010300

FACILITY NAME NTA Graphics, Inc

FACILITY DESCRIPTION	Heatset Web Offset Printing Line with Regenerative Thermal Oxidizer	CITY/TWP	Toledo
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Ohio EPA Permit to Install Information Form Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner**, AQM&P, DAPC, Central Office, and electronic files to airpti@epa.state.oh.us

Please fill out the following. If the checkbox does not work, replace it with an 'X'

	<u>Electronic</u>	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	<u>Hard Copy</u>	<u>None</u>
<u>Calculations (required)</u>	<input type="checkbox"/>	0000000c.wpd	<input checked="" type="checkbox"/>	
<u>Modeling form/results</u>	<input type="checkbox"/>	0000000s.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>PTI Application (complete or partial)*</u>	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>BAT Study</u>	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>Other/misc. Air Toxics</u>	<input type="checkbox"/>	0000000t.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

NSR Discussion

This PTI is for a heatset web offset printing line (HWOPL) used for making advertisements and misc. printed material on rolled stock. The unit has 1 print station w/ 8 towers and 2 dryers along with a splicer, chiller, folder and stacker. The dryer will be controlled by a regenerative thermal oxidizer. The BAT for this unit will follow similar units at this facility installed under 04-934, 04-971, 04-1016 & 04-1113. Non-photochemically reactive materials will be used for ink and fountain solution. No NSPS, PSD, CEM, NESHAPs & MACT were determined. Previous sources were Synthetic Minored to avoid Title V. This unit will also be Synthetic Minored. Air Toxics review and modeling were performed. All materials passed Air Toxics review. (See hard copy calculations for additional discussion.)

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

Synthetic Minor Determination and/or **Netting Determination**
Permit To Install **04-01224**

A. Source Description

NTA Graphics, Inc. currently prints newspaper & advertising inserts. These inserts are made on one Non-Heatset (K001) and four Heatset Web Offset Printing Presses (K002-K005). The Heatset presses are controlled by an regenerative thermal oxidizer for OC. Sources K001-K005 were previously issued PTIs and were Synthetic Minors. This PTI is for the installation of a fifth Heatset line (K006) with its' own regenerative thermal oxidizer and to make the operating restrictions for the new line Federally Enforceable. The material composition and monthly usage for the printing inks, fountain solution and clean-up material will also be restricted by this PTI.

B. Facility Emissions and Attainment Status

Without a Synthetic Minor Determination, this facility would be classified as a major source for OC emissions. The

NEW SOURCE REVIEW FORM B

PTI Number: 04-01224 Facility ID: 0448010300

FACILITY NAME NTA Graphics, Inc

FACILITY DESCRIPTION	Heatset Web Offset Printing Line with Regenerative Thermal Oxidizer	CITY/TWP	Toledo
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location is in Toledo, OH., Lucas County, which is classified as attainment for ozone. Small amounts of PM, SO₂, NO_x and CO are emitted as products of combustion from the dryers and regenerative thermal oxidizer, but none of these pollutants would classify this facility as major. The portion of Lucas county where this plant is located is classified as Nonattainment for SO₂ and Attainment for OC, NO_x and CO. PM is unclassified.

C. Source Emissions

Operating at 8760 hours per year at the maximum application rate would exceed the limit for Major Source classification and Title V. The company has already accepted operating restrictions for K001-K005 to make them a Synthetic Minor. Therefore, the company has agreed to restricting the OC usage for K006 to the following in order to remain a Non-Title V facility:

K006 (heatset line)

Printing inks: 79,167 lbs/month, with a maximum of 40% VOC by weight.

Fountain solution: 262.5 gals/month, at a maximum of 9% VOC by volume, and a maximum density of 8.92 lbs/gal.

Clean-up Material: 246.7 gals/month, at a maximum of 97% VOC by volume, and a maximum density of 6.9 lbs/gal.

These restrictions would allow 21.62 tons/yr OC from K006 and the products of combustion. The total OC emissions from all lines combined would be 97.37 tons/yr. The company would have to do monitoring and perform recordkeeping in order to maintain compliance with these restrictions.

D. Conclusion

Restricting the coating and cleanup solvent usage will limit the annual OC emissions to below the limit for Major Source classification and Title V. Therefore, this PTI is not subject to PSD review.

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

Please complete:

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

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	21.62
PM	1.7

NEW SOURCE REVIEW FORM B

PTI Number: 04-01224

Facility ID: 0448010300

FACILITY NAME NTA Graphics, Inc

FACILITY DESCRIPTION	Heatset Web Offset Printing Line with Regenerative Thermal Oxidizer	CITY/TWP	Toledo
	SO₂	0.05	
	CO	7.0	
	NO_x	8.32	