



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
WARREN COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 14-05130

DATE: 6/14/2001

Flint Ink North America Corporation
Timothy Zacharias
4600 Arrowhead Drive
Ann Arbor, MI 48105

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

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

cc: USEPA

HCDES



Permit To Install

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

FINAL PERMIT TO INSTALL 14-05130

Application Number: 14-05130
APS Premise Number: 1483040427
Permit Fee: **\$1200**
Name of Facility: Flint Ink North America Corporation
Person to Contact: Timothy Zacharias
Address: 4600 Arrowhead Drive
Ann Arbor, MI 48105

Location of proposed air contaminant source(s) [emissions unit(s)]:
Shotwell Avenue
Franklin, Ohio

Description of proposed emissions unit(s):
Installation of four (4) ink mixers with covers and one (1) 3-roll ink mill.

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

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 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 facilities shall be installed upon orders of the Ohio

Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit 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 cannot meet the requirements of this permit 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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 Issued: 6/14/2001

Facility ID: 1483040427

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	10.34
PM	0.15
PM10	0.15

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - 2,000 pound 50 HP Solvent ink mixer with cover	OAC rule 3745-31-05(A)(3)	232.2 lbs/day and 2.41 TPY OC 3.1 lbs/day and 0.03 TPY PM/PM10
	OAC rule 3745-21-07(G)	See terms A.2.a., A.2.c., A.2.d. and B.1. Exempt, See term B.2.

2. Additional Terms and Conditions

- 2.a The maximum OC content for the inks produced in this emissions unit shall not exceed 75 percent by weight.
- 2.b The daily emissions limitations for OC and PM/PM10 outlined above are based on the emissions unit’s potential to emit (PTE). Therefore, no daily records are required to demonstrate compliance with these limits.
- 2.c The permittee shall take all steps necessary to ensure proper material load-in procedures, so as to minimize or eliminate visible emissions of fugitive dust.
- 2.d Fugitive visible particulate emissions from this emissions unit shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.
- 2.e Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with

the maximum OC content limitation, compliance with the maximum annual ink production limitation, compliance with the OC and PM/PM10 emissions limitations, and compliance with the Ohio EPA Air Toxics Policy.

B. Operational Restrictions

1. The maximum amount of inks produced in this emissions unit shall not exceed 428,000 pounds per year.
2. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
 - a. The name and identification of each batch of ink produced.
 - b. The OC content for each ink produced, in percent by weight.
 - c. The amount of each ink produced, in pounds.
 - d. The OC emissions from each ink produced, in tons, calculated by multiplying the actual weight percent OC (lbs solvent/lb ink) by an emission factor of 30 lb OC/2000 lbs of solvent (from AP-42 Fifth Edition, Chapter 6.4, Paint and Varnish Manufacturing, 1983) by the actual amount of ink produced (lbs ink/month) and dividing by 2000 lbs/ton.
 - e. The amount of pigments (non-volatiles/solids) employed, in tons.
 - f. The PM-PM10 emissions, in pounds or tons, calculated by multiplying the tons of pigments (non-volatiles/solids) employed by an emission factor of 2 pounds PM-PM10/ton pigment (AP-42 Table 6.7-1; 5/83).
2. The permittee shall collect and record the following information each month:
 - a. The company identification of each liquid organic material employed in this emissions unit.
 - b. A record of each liquid organic material employed in this emissions unit indicating, whether or not the liquid organic material is photochemically reactive as identified in OAC

rule 3745-21-01(C)(5).

3. The permit to install for emissions units P001 through P003 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions units' exhaust systems, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model(or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: n-propyl acetate

TLV (ug/m3): 835,420

Maximum Hourly Emission Rate (lbs/hr): 5.06

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 1,645

MAGLC (ug/m3): 19,891

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup 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 previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the

Emissions Unit ID: P001

application and modeled; and

- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations specified in term A.2.a.
2. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each day during which any photochemically reactive material [as defined in OAC rule 3745-21-01(C)(5)] was employed in this emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of organic compound emissions emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
3. The permittee shall submit annual reports which summarize the following for this emissions unit:
 - a. The total OC and PM/PM10 emissions for the previous calendar year.
 - b. The total number of pounds of inks produced for the previous calendar year.

These reports shall be submitted by January 31 of each year.

4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Emissions Limitations

232.2 lbs/day OC
2.41 TPY OC

Compliance with the OC emissions limitation in section A.1. shall be demonstrated by the summation of the emissions from each batch produced using the permittee's batch production records and the emission factor (EF) from AP-42 Fifth Edition, Chapter 6.4, Paint and Varnish Manufacturing, 1983:

- a. For each day, the summation of the batch emissions where; actual batch size (lb ink produced /batch) x actual solvent content (lbs solvent/lb ink) x EF (30 lbs OC/2000 lbs solvent) = lbs OC/day; and
- b. Compliance with the annual OC emissions limitation shall be demonstrated by the recordkeeping requirement in term C.1.d.

2. Emissions Limitations

3.1 lbs/day PM/PM10
0.03 TPY PM/PM10

Compliance with the PM/PM10 emissions limitation in section A.1. shall be demonstrated by the summation of the emissions from each batch produced using the permittee's batch production records and the emission factor (EF) from AP-42 Fifth Edition, Chapter 6.7, Printing Ink, 1983:

- a. For each day, the summation of the batch emissions where; actual batch size (tons non-volatiles/solids /batch) x EF (2 lbs PM/PM10/ton non-volatile/solids) = lbs PM/PM10/day; and
- b. Actual amount of pigment (tons non-volatiles/solids/year) x EF (2 lbs PM/PM10/ton non-volatiles/solids) x ton/2000 lbs = TPY PM/PM10.

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Emissions Unit ID: **P001**

3. Compliance with the fugitive visible particulate limitation shall be demonstrated by the methods outlined in US EPA Reference Test Method 9 (40 CFR Part 60).
4. Compliance with the percent by weight OC content limitation in term A.2.a. shall be determined by the record keeping requirements as specified in term C.1.
5. Compliance with the ink production limitation in term B.1. shall be determined by the record keeping requirements as specified in term C.1.

F. Miscellaneous Requirements

None

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P002 - 400 pound 4 Hp Solvent ink air mixer with cover	OAC rule 3745-31-05(A)(3)	108.0 lbs/day and 3.61 TPY OC 1.4 lbs/day and 0.05 TPY PM/PM10
	OAC rule 3745-21-07(G)	See terms A.2.a., A.2.c., A.2.d. and B.1. Exempt, See term B.2.

2. Additional Terms and Conditions

- 2.a The maximum OC content for the inks produced in this emissions unit shall not exceed 75 percent by weight.
- 2.b The daily emissions limitations for OC and PM/PM10 outlined above are based on the emissions unit's potential to emit (PTE). Therefore, no daily records are required to demonstrate compliance with these limits.
- 2.c The permittee shall take all steps necessary to ensure proper material load-in procedures, so as to minimize or eliminate visible emissions of fugitive dust.
- 2.d Fugitive visible particulate emissions from this emissions unit shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the maximum OC content limitation, compliance with the maximum annual ink production limitation, compliance with the OC and PM/PM10 emissions limitations, and compliance with the Ohio EPA Air Toxics Policy.

B. Operational Restrictions

1. The maximum amount of inks produced in this emissions unit shall not exceed 641,000 pounds per year.
2. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
 - a. The name and identification of each batch of ink produced.
 - b. The OC content for each ink produced, in percent by weight.
 - c. The amount of each ink produced, in pounds.
 - d. The OC emissions from each ink produced, in tons, calculated by multiplying the actual weight percent OC (lbs solvent/lb ink) by an emission factor of 30 lb OC/2000 lbs of solvent (from AP-42 Fifth Edition, Chapter 6.4, Paint and Varnish Manufacturing, 1983) by the actual amount of ink produced (lbs ink/month) and dividing by 2000 lbs/ton.
 - e. The amount of pigments (non-volatiles/solids) employed, in tons.
 - f. The PM-PM10 emissions, in pounds or tons, calculated by multiplying the tons of pigments (non-volatiles/solids) employed by an emission factor of 2 pounds PM-PM10/ton pigment (AP-42 Table 6.7-1; 5/83).
2. The permittee shall collect and record the following information each month:
 - a. The company identification of each liquid organic material employed in this emissions unit.

Emissions Unit ID: **P002**

- b. A record of each liquid organic material employed in this emissions unit indicating, whether or not the liquid organic material is photochemically reactive as identified in OAC rule 3745-21-01(C)(5).
3. The permit to install for emissions units P001 through P003 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions units' exhaust systems, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model(or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: n-propyl acetate

TLV (ug/m3): 835,420

Maximum Hourly Emission Rate (lbs/hr): 5.06

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 1,645

MAGLC (ug/m3): 19,891

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup 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 previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in

an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations specified in term A.2.a.
2. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each day during which any photochemically reactive material [as defined in OAC rule 3745-21-01(C)(5)] was employed in this emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of organic compound emissions emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
3. The permittee shall submit annual reports which summarize the following for this emissions unit:
 - a. The total OC and PM/PM10 emissions for the previous calendar year.

- b. The total number of pounds of inks produced for the previous calendar year.

These reports shall be submitted by January 31 of each year.

4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Emissions Limitations

108.0 lbs/day OC
 3.61 TPY OC

Compliance with the OC emissions limitation in section A.1. shall be demonstrated by the summation of the emissions from each batch produced using the permittee's batch production records and the emission factor (EF) from AP-42 Fifth Edition, Chapter 6.4, Paint and Varnish Manufacturing, 1983:

- a. For each day, the summation of the batch emissions where; actual batch size (lb ink produced /batch) x actual solvent content (lbs solvent/lb ink) x EF (30 lbs OC/2000 lbs solvent) = lbs OC/day; and
- b. Compliance with the annual OC emissions limitation shall be demonstrated by the recordkeeping requirement in term C.1.d.

2. Emissions Limitations

1.4 lbs/day PM/PM10
 0.05 TPY PM/PM10

Compliance with the PM/PM10 emissions limitation in section A.1. shall be demonstrated by the summation of the emissions from each batch produced using the permittee's batch production records and the emission factor (EF) from AP-42 Fifth Edition, Chapter 6.7, Printing Ink, 1983:

- a. For each day, the summation of the batch emissions where; actual batch size (tons non-volatiles/solids /batch) x EF (2 lbs PM/PM10/ton non-volatile/solids) = lbs PM/PM10/day; and
- b. Actual amount of pigment (tons non-volatiles/solids/year) x EF (2 lbs PM/PM10/ton

non-volatiles/solids) x ton/2000 lbs = TPY PM/PM10.

3. Compliance with the fugitive visible particulate limitation shall be demonstrated by the methods outlined in US EPA Reference Test Method 9 (40 CFR Part 60).
4. Compliance with the percent by weight OC content limitation in term A.2.a. shall be determined by the record keeping requirements as specified in term C.1.
5. Compliance with the ink production limitation in term B.1. shall be determined by the record keeping requirements as specified in term C.1.

F. Miscellaneous Requirements

None

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P003 - 400 pound 4 Hp Solvent ink air mixer with cover	OAC rule 3745-31-05(A)(3)	108.0 lbs/day and 3.61 TPY OC 1.4 lbs/day and 0.05 TPY PM/PM10 See terms A.2.a., A.2.c., A.2.d. and B.1.
	OAC rule 3745-21-07(G)	Exempt, See term B.2.

2. Additional Terms and Conditions

- 2.a The maximum OC content for the inks produced in this emissions unit shall not exceed 75 percent by weight.
- 2.b The daily emissions limitations for OC and PM-PM10 outlined above are based on the emissions unit's potential to emit (PTE). Therefore, no daily records are required to demonstrate compliance with these limits.
- 2.c The permittee shall take all steps necessary to ensure proper material load-in procedures, so as to minimize or eliminate visible emissions of fugitive dust.
- 2.d Fugitive visible particulate emissions from this emissions unit shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.

Emissions Unit ID: **P003**

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the maximum OC content limitation, compliance with the maximum annual ink production limitation, compliance with the OC and PM/PM10 emissions limitations, and compliance with the Ohio EPA Air Toxics Policy.

B. Operational Restrictions

1. The maximum amount of inks produced in this emissions unit shall not exceed 641,000 pounds per year.
2. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
 - a. The name and identification of each batch of ink produced.
 - b. The OC content for each ink produced, in percent by weight.
 - c. The amount of each ink produced, in pounds.
 - d. The OC emissions from each ink produced, in tons, calculated by multiplying the actual weight percent OC (lbs solvent/lb ink) by an emission factor of 30 lb OC/2000 lbs of solvent (from AP-42 Fifth Edition, Chapter 6.4, Paint and Varnish Manufacturing, 1983) by the actual amount of ink produced (lbs ink/month) and dividing by 2000 lbs/ton.
 - e. The amount of pigments (non-volatiles/solids) employed, in tons.
 - f. The PM-PM10 emissions, in pounds or tons, calculated by multiplying the tons of pigments (non-volatiles/solids) employed by an emission factor of 2 pounds PM-PM10/ton pigment (AP-42 Table 6.7-1; 5/83).
2. The permittee shall collect and record the following information each month:
 - a. The company identification of each liquid organic material employed in this emissions unit.
 - b. A record of each liquid organic material employed in this emissions unit indicating, whether or not the liquid organic material is photochemically reactive as identified in OAC

rule 3745-21-01(C)(5).

3. The permit to install for emissions units P001 through P003 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions units' exhaust systems, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model(or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: n-propyl acetate

TLV (ug/m3): 835,420

Maximum Hourly Emission Rate (lbs/hr): 5.06

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 1,645

MAGLC (ug/m3): 19,891

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup 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 previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the

application and modeled; and

- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations specified in term A.2.a.
2. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each day during which any photochemically reactive material [as defined in OAC rule 3745-21-01(C)(5)] was employed in this emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of organic compound emissions emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
3. The permittee shall submit annual reports which summarize the following for this emissions unit:
 - a. The total OC and PM/PM10 emissions for the previous calendar year.
 - b. The total number of pounds of inks produced for the previous calendar year.

These reports shall be submitted by January 31 of each year.

4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Emissions Limitations

108.0 lbs/day OC
 3.61 TPY OC

Compliance with the OC emissions limitation in section A.1. shall be demonstrated by the summation of the emissions from each batch produced using the permittee's batch production records and the emission factor (EF) from AP-42 Fifth Edition, Chapter 6.4, Paint and Varnish Manufacturing, 1983:

- a. For each day, the summation of the batch emissions where; actual batch size (lb ink produced /batch) x actual solvent content (lbs solvent/lb ink) x EF (30 lbs OC/2000 lbs solvent) = lbs OC/day; and
- b. Compliance with the annual OC emissions limitation shall be demonstrated by the recordkeeping requirement in term C.1.d.

2. Emissions Limitations

1.4 lbs/day PM/PM10
 0.05 TPY PM/PM10

Compliance with the PM/PM10 emissions limitation in section A.1. shall be demonstrated by the summation of the emissions from each batch produced using the permittee's batch production records and the emission factor (EF) from AP-42 Fifth Edition, Chapter 6.7, Printing Ink, 1983:

- a. For each day, the summation of the batch emissions where; actual batch size (tons non-volatiles/solids /batch) x EF (2 lbs PM/PM10/ton non-volatile/solids) = lbs PM/PM10/day; and
- b. Actual amount of pigment (tons non-volatiles/solids/year) x EF (2 lbs PM/PM10/ton non-volatiles/solids) x ton/2000 lbs = TPY PM/PM10.

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3. Compliance with the fugitive visible particulate limitation shall be demonstrated by the methods outlined in US EPA Reference Test Method 9 (40 CFR Part 60).
4. Compliance with the percent by weight OC content limitation in term A.2.a. shall be determined by the record keeping requirements as specified in term C.1.
5. Compliance with the ink production limitation in term B.1. shall be determined by the record keeping requirements as specified in term C.1.

F. Miscellaneous Requirements

None

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P004 - 150 pound 25 Hp Paste mixer with cover	OAC rule 3745-31-05(A)(3)	13.0 lbs/day and 0.41 TPY OC 0.5 lb/day and 0.02 TPY PM/PM10
	OAC rule 3745-21-07(G)	See terms A.2.a., A.2.c., A.2.d. and B.1. Exempt, See term B.2.

2. Additional Terms and Conditions

- 2.a The maximum OC content for the paste inks produced in this emissions unit shall not exceed 24 percent by weight.
- 2.b The daily emissions limitations for OC and PM-PM10 outlined above are based on the emissions unit's potential to emit (PTE). Therefore, no daily records are required to demonstrate compliance with these limits.
- 2.c The permittee shall take all steps necessary to ensure proper material load-in procedures, so as to minimize or eliminate visible emissions of fugitive dust.
- 2.d Fugitive visible particulate emissions from this emissions unit shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.

- 2.e Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the maximum OC content limitation, compliance with the maximum annual ink paste production limitation, and compliance with the OC and PM/PM10 emissions limitations.

B. Operational Restrictions

1. The maximum amount of paste inks produced in this emissions unit shall not exceed 225,000 pounds per year.
2. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
 - a. the name and identification of each batch of ink produced.
 - b. The OC content for each ink produced, in percent by weight.
 - c. The amount of each ink produced, in pounds.
 - d. The OC emissions from each ink produced, in tons, calculated by multiplying the actual weight percent OC (lbs solvent/lb ink) by an emission factor of 30 lb OC/2000 lbs of solvent (from AP-42 Fifth Edition, Chapter 6.4, Paint and Varnish Manufacturing, 1983) by the actual amount of ink produced (lbs ink/month) and dividing by 2000 lbs/ton.
 - e. The amount of pigments (non-volatiles/solids) employed, in tons.
 - f. The PM-PM10 emissions, in pounds or tons, calculated by multiplying the tons of pigments (non-volatiles/solids) employed by an emission factor of 2 pounds PM-PM10/ton pigment (AP-42 Table 6.7-1; 5/83).
2. The permittee shall collect and record the following information each month:
 - a. The company identification of each liquid organic material employed in this emissions unit.
 - b. A record of each liquid organic material employed in this emissions unit indicating, whether or not the liquid organic material is photochemically reactive as identified in OAC

rule 3745-21-01(C)(5).

D. Reporting Requirements

1. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations specified in term A.2.a.
2. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each day during which any photochemically reactive material [as defined in OAC rule 3745-21-01(C)(5)] was employed in this emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of organic compound emissions emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
3. The permittee shall submit annual reports which summarize the following for this emissions unit:
 - a. The total OC and PM/PM10 emissions for the previous calendar year.
 - b. The total number of pounds of inks produced for the previous calendar year.

These reports shall be submitted by January 31 of each year.

4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Emissions Limitations

13.0 lbs/day OC
0.41 TPY OC

Compliance with the OC emissions limitation in section A.1. shall be demonstrated by the summation of the emissions from each batch produced using the permittee's batch production records and the emission factor (EF) from AP-42 Fifth Edition, Chapter 6.4, Paint and Varnish Manufacturing, 1983:

- a. For each day, the summation of the batch emissions where; actual batch size (lb ink produced /batch) x actual solvent content (lbs solvent/lb ink) x EF (30 lbs OC/2000 lbs

solvent) = lbs OC/day; and

- b. Compliance with the annual OC emissions limitation shall be demonstrated by the recordkeeping requirement in term C.1.d.

2. Emissions Limitations

0.5 lb/day PM/PM10

0.02 TPY PM/PM10

Compliance with the PM/PM10 emissions limitation in section A.1. shall be demonstrated by the summation of the emissions from each batch produced using the permittee's batch production records and the emission factor (EF) from AP-42 Fifth Edition, Chapter 6.7, Printing Ink, 1983:

- a. For each day, the summation of the batch emissions where; actual batch size (tons non-volatiles/solids /batch) x EF (2 lbs PM/PM10/ton non-volatile/solids) = lbs PM/PM10/day; and
 - b. Actual amount of pigment (tons non-volatiles/solids/year) x EF (2 lbs PM/PM10/ton non-volatiles/solids) x ton/2000 lbs = TPY PM/PM10.
3. Compliance with the fugitive visible particulate limitation shall be demonstrated by the methods outlined in US EPA Reference Test Method 9 (40 CFR Part 60).
 4. Compliance with the percent by weight OC content limitation in term A.2.a. shall be determined by the record keeping requirements as specified in term C.1.
 5. Compliance with the ink production limitation in term B.1. shall be determined by the record keeping requirements as specified in term C.1.

F. Miscellaneous Requirements

None

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P005 - 3-roll Paste ink mill	OAC rule 3745-31-05(A)(3)	13.0 lbs/day and 0.30 TPY OC
	OAC rule 3745-21-07(G)	See terms A.2.a. and B.1. Exempt, See term B.2.

2. Additional Terms and Conditions

- 2.a The maximum OC content for the paste inks processed in this emissions unit shall not exceed 24 percent by weight.
- 2.b The daily emissions limitation for OC outlined above is based on the emissions unit's potential to emit (PTE). Therefore, no daily records are required to demonstrate compliance with this limit.
- 2.c Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the maximum OC content limitation, compliance with the maximum annual paste ink processing limitation, and compliance with the OC emissions limitations.

B. Operational Restrictions

1. The maximum amount of paste inks processed in this emissions unit shall not exceed 168,600 pounds per year.
2. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is

prohibited.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
 - a. The name and identification of each batch of paste ink produced.
 - b. The OC content for each paste ink produced, in percent by weight.
 - c. The amount of each paste ink produced, in pounds.
 - d. The OC emissions from each paste ink produced, in tons, calculated by multiplying the actual weight percent OC (lbs solvent/lb ink) by an emission factor of 30 lb OC/2000 lbs of solvent (from AP-42 Fifth Edition, Chapter 6.4, Paint and Varnish Manufacturing, 1983) by the actual amount of paste ink produced (lbs ink/month) and dividing by 2000 lbs/ton.
2. The permittee shall collect and record the following information each month:
 - a. The company identification of each liquid organic material employed in this emissions unit.
 - b. A record of each liquid organic material employed in this emissions unit indicating, whether or not the liquid organic material is photochemically reactive as identified in OAC rule 3745-21-01(C)(5).

D. Reporting Requirements

1. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations specified in term A.2.a.
2. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each day during which any photochemically reactive material [as defined in OAC rule 3745-21-01(C)(5)] was employed in this emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of organic compound emissions emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
3. The permittee shall submit annual reports which summarize the following for this emissions unit:

- a. The total OC emissions for the previous calendar year.
- b. The total number of pounds of paste inks produced for the previous calendar year.

These reports shall be submitted by January 31 of each year.

4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Emissions Limitations

13.0 lbs/day OC

0.30 TPY OC

Compliance with the OC emissions limitation in section A.1. shall be demonstrated by the summation of the emissions from each batch produced using the permittee's batch production records and the emission factor (EF) from AP-42 Fifth Edition, Chapter 6.4, Paint and Varnish Manufacturing, 1983:

- a. For each day, the summation of the batch emissions where; actual batch size (lb ink produced /batch) x actual solvent content (lbs solvent/lb ink) x EF (30 lbs OC/2000 lbs solvent) = lbs OC/day; and
 - b. Compliance with the annual OC emissions limitation shall be demonstrated by the recordkeeping requirement in section C.1.d.
2. Compliance with the percent by weight OC content limitation in term A.2.a. shall be determined by the record keeping requirements as specified in term C.1.
 3. Compliance with the paste ink production limitation in term B.1. shall be determined by the record keeping requirements as specified in term C.1.

F. Miscellaneous Requirements

None