



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION
HAMILTON 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: 14-04567

DATE: 7/15/2003

S Rosenthal and Co Inc
James Brown
9933 Alliance Rd
Cincinnati, OH 45219

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

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
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA

HCDES



**Permit To Install
Terms and Conditions**

**Issue Date: 7/15/2003
Effective Date: 7/15/2003**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 14-04567

Application Number: 14-04567
APS Premise Number: 1431052165
Permit Fee: **\$0**
Name of Facility: S Rosenthal and Co Inc
Person to Contact: James Brown
Address: 9933 Alliance Rd
Cincinnati, OH 45219

Location of proposed air contaminant source(s) [emissions unit(s)]:
**9933 Alliance Rd
Cincinnati, Ohio**

Description of proposed emissions unit(s):
Modification to PTI 14-04567 to include language that USEPA has requested.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

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

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

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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 Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

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

a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter

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3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 source(s) covered by this permit.

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	30.1
PM/PM10	7.23

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>
R002 - 4-unit heatset web offset press, controlled by a thermal incinerator.	OAC rule 3745-31-05(A)(3)	See terms A.2.a, A.2.b, A.2.c, A.2.d, A.2.e and B.4. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-11(B) and OAC 3745-31-05(D).
	OAC rule 3745-21-07(G)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	See term A.2.f.
	OAC rule 3745-17-11(B)	0.551 lb/hour PM/PM10 (particulate emissions)
	OAC rule 3745-31-05(D)	See terms A.2.g and B.1. 8.85 tons per year from the oven exhaust (ink only), based on a rolling, 12-month summation.

15.52 tons/year from all materials (including inks, fountain solutions and cleanup materials) based on a rolling, 12-month summation.

2. Additional Terms and Conditions

- 2.a** The OC emissions from the oven exhaust (ink only) shall not exceed 3.6 lbs/hour and 86.4 lbs/day.

The hourly and daily OC emissions limits are based on the maximum production capacity of the equipment; therefore, no recordkeeping, reporting, or testing is required to demonstrate compliance with the hourly or daily OC emission limits.

- 2.b** The OC emissions from all materials (including inks, fountain solutions and cleanup materials) shall not exceed a combined total of 145.2 lbs/day.

The daily OC emissions limit is based on the maximum production capacity of the equipment; therefore, no record keeping, reporting, or testing is required to demonstrate compliance with the daily OC emissions limit.

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

- 2.d** The following organic compound limits shall not be exceeded:

Inks - 3.75 lbs/gal

Fountain Solution - 0.061 lb/gal

Cleanup Material - 6.92 lbs/gal

Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating applied to a lithographic plate to render the nonimage areas unreceptive to ink. Cleanup Material means all materials used to remove excess printing inks, oils and paper components from press equipment.

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the OC content limits, usage limits, the use of a thermal oxidizer with a control efficiency equal to or greater than 90.0 % for OC emissions from the oven exhaust, the continued use of non-photochemically reactive materials and compliance with the air toxics policy.

- 2.f** Visible particulate emissions from any stack associated with this emissions unit shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

- 2.g** The allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with this limit upon permit issuance.

- 2.h** The permittee shall operate and maintain a thermal oxidizer, at a minimum, 90.0 % (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions unit R002.

B. Operational Restrictions

1. The maximum annual material usage for this emissions unit shall not exceed the following:

Inks - 59,000 gallons/year
Fountain Solution - 68,800 gallons/year
Cleanup Material - 1320 gallons/year.

Compliance with the annual usage limitations shall be based upon a rolling, 12-month summation.

2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when this emissions unit is in operation shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent performance test that demonstrated compliance with the 90.0 percent overall OC destruction efficiency requirement.
3. All cleanup material usage is considered to be evaporated.
4. Solvent soiled rags shall be stored in closed containers.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following:
- a. The name and identification of each ink, fountain solution and cleanup material employed, as applied.
- b. An identification of each ink, fountain solution and cleanup material employed, indicating whether or not each ink, fountain solution and cleanup material is a photochemically reactive material.
- c. The OC content of each ink, fountain solution and cleanup material, as applied, in pounds per gallon.

- d. The number of gallons of each ink, fountain solution and cleanup material employed.
- e. The rolling, 12-month summation of usage in gallons of each ink, fountain solution and cleanup material employed.
- f. The OC emissions from all inks, as calculated using the equation in term E.6, in tons per month.
- g. The rolling, 12-month summation of the total OC emissions from all inks, i.e., the sum of (f) for the previous 12 calendar months, in tons per year.
- h. The OC emissions from all inks, fountain solutions and cleanup materials, as calculated using the equation in term E.6, in tons per month.
- i. The updated rolling, 12-month summation of the total OC emissions from all inks, fountain solutions and cleanup materials, i.e., the sum of (h) for the previous 12 calendar months, in tons per year.

Monthly records shall be completed within 15 days following the end of each calendar month.

2. The permittee shall collect and record the following information each month for the entire facility:
 - a. The name and identification number of each ink, fountain solution and cleanup material employed.
 - b. The individual Hazardous Air Pollutant (HAP)* content for each HAP of each ink, fountain solution and cleanup material employed in pounds of individual HAP per gallon of material, as applied.
 - c. The total combined HAP content of each ink, fountain solution and cleanup material employed in pounds of combined HAPs per gallon of material, as applied [sum all the individual HAP contents from (b)].
 - d. The number of gallons of each ink, fountain solution and cleanup material employed.
 - e. The total individual HAP emissions for each HAP from all ink, fountain solution and cleanup material employed, in pounds or tons per month [for each HAP the sum of (b) times (d)].
 - f. The total combined HAP emissions from all ink, fountain solution and cleanup material

employed, in pounds or tons per month [the sum of (c) times (d)].

- g. The updated rolling, 12-month summation of the individual HAP emissions for each HAP from each ink, fountain solution and cleanup material employed, in pounds or tons.
- h. The updated rolling, 12-month summation of the combined HAP emissions for all HAP from each ink, fountain solution and cleanup material employed, in pounds or tons.

- * A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when this emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated compliance with the 90.0 percent overall OC destruction efficiency requirement.
- b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
4. The permit to install for this emissions unit (R002) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, 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: Stoddard Solvent

TLV (ug/m3): 572,600

Maximum Hourly Emission Rate (lbs/hr): 9.0

Predicted 1 Hour Maximum Ground-Level Concentration : 291 (ug/m3)

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 13,633

Emissions Unit ID: R002

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.

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 it's 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.
5. The permittee shall maintain for this facility all purchase orders and invoices of OC-containing materials. The permittee shall retain such purchase orders and invoices for at least five years from

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their date of issuance. Upon request, the permittee shall make available to the Director of the Ohio EPA, or an authorized representative of the Director, such purchase orders and invoices for use in confirming the general accuracy of the records maintained and the reports submitted regarding material usage.

D. Reporting Requirements

1. 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 material(s) emitted each such day. The report shall be submitted within 30 days after the end of that month in which the exceedance occurred, to the Hamilton County Department of Environmental Services.
2. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedance of the HAP emissions limitations in term A.2.g.. The report shall be submitted within 30 days after the end of that rolling, 12-month period in which the exceedance occurred, to the Hamilton County Department of Environmental Services stating that the HAP emissions limitation was exceeded. Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

In addition, the permittee shall submit annual reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year. If no exceedances occurred during the reporting period then a report is required stating so.

3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term B.2. The report shall be submitted within 30 days after the end of that month in which the exceedance occurred, to the Hamilton County Department of Environmental Services.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying any exceedance of the annual emission limits of 8.85 tons of OC per year based on a rolling, 12-month summation from the oven exhaust (ink only) and 15.52 tons of OC per year from all materials based on a rolling, 12-month summation (including inks, fountain solutions and cleanup materials). The notification shall include a copy of each such record, an explanation for the exceedance and what is being done to correct the violation. The notification shall be submitted within 30 days after the end of that rolling 12-month period in which the exceedance occurred. Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.
5. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of usages in gallons from the inks, fountain solution and cleanup material for emissions

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unit R002 for each calendar month. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

6. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying inks, fountain solution and/or cleanup material (i.e., Organic Compound Limits). The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

E. Testing Requirements

1. OAC rule 3745-21-10(B) shall be used to determine the OC contents of the inks, fountain solutions, and cleanup materials. If pursuant to 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or Method 24A cannot be used, the permittee shall notify the Administrator of USEPA and shall use formulation data for the material to demonstrate compliance until USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
2. Compliance with the visible particulate emission limitation in term A.1 shall be demonstrated by Method 9, 40 CFR Part 60, Appendix A.
3. Compliance with the usage limitations in term B.1 shall be determined by the recordkeeping in term C.1.
4. Compliance with the HAP emission limitation in term A.2.g shall be determined by the record keeping in term C.2.
5. Compliance with the photochemically reactive material limitation in term A.2.c shall be demonstrated by the record keeping in term C.1.
6. Compliance with the annual OC emissions outlined in this permit shall be demonstrated by multiplying the OC content in pounds per gallon times the material usage rate in gallons times the retention rate consistent with Ohio EPA Engineering guide #56 times (1- control efficiency of thermal oxidizer*)

ink emissions

20 percent of the OC's in heatset inks are retained by the substrate, 80 percent goes to the dryer. Dryer emissions are vented to a thermal incinerator with a 90 percent control efficiency as demonstrated in the following equation:

gallons of ink/year X pounds of OC/gallon of ink X (1-.20) X (1-.90) X ton/2000 lbs = TPY OC

fountain solution emissions

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fountain solution emissions were calculated as fugitive emissions assuming no retention .

fugitive OC emissions = gallons of fountain solution/year X pounds OC/gallon of fountain solution ton/2000 lbs= TPY OC emissions that are fugitive

cleanup material emissions

emission unit R002 does not employ an automatic blanket wash system so 100 percent of the cleanup material is emitted as demonstrated in the following equation:

gallons of cleanup material/year X pounds OC/ gallon cleanup solvent X ton/2000 lb = TPY OC from cleanup material

F. Miscellaneous Requirements

1. The terms and conditions in this permit to install shall supersede permit to install 14-04567 issued on August 19,1998 for this emissions unit.
2. The following terms and conditions of this permit are federally enforceable: A, B, C.1 - C.3, C.5, D and E.

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

A. Applicable Emissions Limitations and/or Control Requirements

- 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>
R005 - 8-unit heatset web offset press, controlled by a thermal incinerator.	OAC rule 3745-31-05(A)(3)	See terms A.2.a, A.2.b, A.2.c, A.2.d, A.2.e, and B.4.
	OAC rule 3745-21-07(G)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-11(B) and OAC rule 3745-31-05(D).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)	See term A.2.f.
	OAC rule 3745-31-05(D)	0.551 lb/hour PM/PM10 (particulate emissions)
		See terms A.2.g and B.1.
		3.24 tons per year from the oven exhaust (ink only), based on a rolling,

12-month summation.

5.26 tons/year from all materials (including inks, fountain solutions and cleanup materials), based on a rolling, 12-month summation.

2. Additional Terms and Conditions

- 2.a** The OC emissions from the oven exhaust (ink only) shall not exceed 3.0 lbs/hour and 72 lbs/day .

The hourly and daily OC emissions limits are based on the maximum production capacity of the equipment; therefore, no recordkeeping, reporting, or testing is required to demonstrate compliance with the hourly or daily OC emission limits.

- 2.b** The OC emissions from all materials (including inks, fountain solutions and cleanup materials) shall not exceed a combined total of 97.1 lbs/day.

The daily OC emissions limit is based on the maximum production capacity of the equipment; therefore, no record keeping, reporting, or testing is required to demonstrate compliance with the daily OC emissions limit.

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

- 2.d** The following organic compound limits shall not be exceeded:

Inks - 3.75 lbs/gal

Fountain Solution - 0.061 lb/gal

Cleanup Material - 6.92 lbs/gal

Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating applied to a lithographic plate to render the nonimage areas unreceptive to ink. Cleanup Material means all materials used to remove excess printing inks, oils and paper components from press equipment.

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the OC content limits, usage limits, the use of a thermal oxidizer with a control efficiency equal to or greater than 90.0 % for OC emissions from the oven exhaust, the continued use of

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non-photochemically reactive materials and compliance with the air toxics policy.

- 2.f** Visible particulate emissions from any stack associated with this emission unit shall not exceed 20 percent opacity, as a six minute average, except as specified by rule.

- 2.g** The allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with this limit upon permit issuance.

- 2.h** The permittee shall operate and maintain a thermal oxidizer, at a minimum, 90.0 % (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions unit R005.

B. Operational Restrictions

1. The following material usages shall not be exceeded:

Inks - 21,616 gallons/year
Fountain Solution - 32,000 gallons/year
Cleanup Material - 300 gallons/year.

Compliance with the annual usage limitations shall be based upon a rolling, 12-month summation.

2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when this emissions units is in operation shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent performance test that demonstrated compliance with the 90.0 percent overall OC destruction efficiency requirement.
3. All cleanup material usage is considered to be evaporated.
4. Solvent soiled rags shall be stored in closed containers.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following:
 - a. The name and identification of each ink, fountain solution and cleanup material employed, as applied.
 - b. An identification of each ink, fountain solution and cleanup material employed, indicating whether or not each ink, fountain solution and cleanup material is a photochemically reactive material.
 - c. The OC content of each ink, fountain solution and cleanup material, as applied, in pounds per gallon.

- d. The number of gallons of each ink, fountain solution and cleanup material employed.
- e. The rolling, 12-month summation of usage in gallons of each ink, fountain solution and cleanup material employed.
- f. The OC emissions from all inks, as calculated using the equation in term E.6, in tons per month.
- g. The rolling, 12-month summation of the total OC emissions from all inks, i.e., the sum of (f) for the previous 12 calendar months, in tons per year.
- h. The OC emissions from all inks, fountain solutions and cleanup materials, as calculated using the equation in term E.6, in tons per month.
- i. The updated rolling, 12-month summation of the total OC emissions from all inks, fountain solutions and cleanup materials, i.e., the sum of (h) for the previous 12 calendar months, in tons per year.

Monthly records shall be completed within 15 days following the end of each calendar month.

2. The permittee shall collect and record the following information each month for the entire facility:
 - a. The name and identification number of each ink, fountain solution and cleanup material employed.
 - b. The individual Hazardous Air Pollutant (HAP)* content for each HAP of each ink, fountain solution and cleanup material employed in pounds of individual HAP per gallon of material, as applied.
 - c. The total combined HAP content of each ink, fountain solution and cleanup material employed in pounds of combined HAPs per gallon of material, as applied [sum all the individual HAP contents from (b)].
 - d. The number of gallons of each ink, fountain solution and cleanup material employed.
 - e. The total individual HAP emissions for each HAP from all ink, fountain solution and cleanup material employed, in pounds or tons per month [for each HAP the sum of (b) times (d)].

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- f. The total combined HAP emissions from all ink, fountain solution and cleanup material employed, in pounds or tons per month [the sum of (c) times (d)].
- g. The updated rolling, 12-month summation of the individual HAP emissions for each HAP from each ink, fountain solution and cleanup material employed, in pounds or tons.
- h. The updated rolling, 12-month summation of the combined HAP emissions for all HAP from each ink, fountain solution and cleanup material employed, in pounds or tons.

- * A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when this emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated compliance with the 90.0 percent overall OC destruction efficiency requirement.
 - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
4. The permit to install for this emissions unit (R005) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, 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: Stoddard Solvent

TLV (ug/m3): 572,600

Maximum Hourly Emission Rate (lbs/hr): 9.0

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 291

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 13,633

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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.

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.
5. The permittee shall maintain for this facility all purchase orders and invoices of OC-containing materials. The permittee shall retain such purchase orders and invoices for at least five years from their date of issuance. Upon request, the permittee shall make available to the Director of the Ohio EPA, or an authorized representative of the Director, such purchase orders and invoices for

use in confirming the general accuracy of the records maintained and the reports submitted regarding material usage.

D. Reporting Requirements

1. 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 material(s) emitted each such day. The report shall be submitted within 30 days after the end of that month in which the exceedance occurred, to the Hamilton County Department of Environmental Services.
2. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedance of the HAP emissions limitations in term A.2.g.. The report shall be submitted within 30 days after the end of that rolling, 12-month period in which the exceedance occurred, to the Hamilton County Department of Environmental Services stating that the HAP emissions limitation was exceeded. Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

In addition, the permittee shall submit annual reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year. If no exceedances occurred during the reporting period then a report is required stating so.

3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term B.2. The report shall be submitted within 30 days after the end of that month in which the exceedance occurred, to the Hamilton County Department of Environmental Services.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying any exceedance of the annual emission limits of 3.24 tons of OC per year based on a rolling, 12-month summation from the oven exhaust (ink only) and 5.26 tons of OC per year from all materials based on a rolling, 12-month summation (including inks, fountain solutions and cleanup materials). The notification shall include a copy of each such record, an explanation for the exceedance and what is being done to correct the violation. The notification shall be submitted within 30 days after the end of that rolling 12-month period in which the exceedance occurred.

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Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

5. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of usages in gallons from the inks, fountain solution and cleanup material for emissions unit R005 for each calendar month. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

6. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying inks, fountain solution and/or cleanup material (i.e., Organic Compound Limits). The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

E. Testing Requirements

1. OAC rule 3745-21-10(B) shall be used to determine the OC contents of the inks, fountain solutions, coatings, metering rolling cleaner, non-piling additive, adhesives and blanket wash. If pursuant to 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or Method 24A cannot be used, the permittee shall notify the Administrator of USEPA and shall use formulation data for the material to demonstrate compliance until USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
2. Compliance with the visible particulate emission limitation in term A.1 shall be demonstrated by Method 9, 40 CFR Part 60, Appendix A.
3. Compliance with the usage limitation in term B.1 shall be determined by the recordkeeping in term C.1.
4. Compliance with the HAP emission limitation in term A.2.g shall be determined by the record keeping in term C.2.
5. Compliance with the photochemically reactive material limitation in term A.2.c shall be demonstrated by the record keeping in term C.1.
6. Compliance with the annual OC emissions outlined in this permit shall be demonstrated by multiplying the OC content in pounds per gallon times the material usage rate in gallons times the retention rate consistent with Ohio EPA Engineering guide #56 times (1- control efficiency of thermal oxidizer*)

ink emissions

20 percent of the OC's in heatset inks are retained by the substrate, 80 percent goes to the dryer. Dryer emissions are vented to a thermal incinerator with a 90 percent control efficiency as demonstrated in the following equation:

$$\text{gallons of ink/year} \times \text{pounds of OC/gallon of ink} \times (1-.20) \times (1-.90) \times \text{ton/2000 lbs} = \text{TPY OC}$$

fountain solution emissions

fountain solution emissions were calculated as fugitive emissions assuming no retention .

fugitive OC emissions = gallons of fountain solution/year X pounds OC/gallon of fountain solution ton/2000 lbs= TPY OC emissions that are fugitive

cleanup material emissions

emission unit R005 does not employ an automatic blanket wash system so 100 percent of the cleanup material is emitted as demonstrated in the following equation:

gallons of cleanup material/year X pounds OC/ gallon cleanup solvent X ton/2000 lb = TPY OC from cleanup material

F. Miscellaneous Requirements

1. The terms and conditions in this permit to install shall supersede permit to install 14-04567 issued on August 19,1998 for this emissions unit.
2. The following terms and conditions of this permit are federally enforceable: A, B, C.1 - C.3, C.5, D and E.

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>
R006 - 6-unit heatset web offset press, controlled by a thermal incinerator.	OAC rule 3745-31-05(A)(3)	See terms A.2.a, A.2.b, A.2.c, A.2.d., A.2.e, and B.4 The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-11(B) and OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3744-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	See term A.2.f.
	OAC rule 3745-17-11(B)	0.551 lb/hour PM/PM10 (particulate emissions)
	OAC rule 3745-31-05(D)	See terms A.2.g and B.1.
		1.95 tons per year from the oven exhaust (ink only), based on a rolling,

12-month summation.

6.31 tons/year from all materials (including inks, fountain solutions and cleanup materials), based on a rolling, 12-month summation.

2. Additional Terms and Conditions

- 2.a** The OC emissions from the oven exhaust (ink only) shall not exceed 2.4 lbs/hour and 57.6 lbs/day.

The hourly and daily OC emissions limits are based on the maximum production capacity of the equipment; therefore, no recordkeeping, reporting, or testing is required to demonstrate compliance with the hourly or daily OC emission limits.

- 2.b** The OC emissions from all materials (including inks, fountain solutions and cleanup materials) shall not exceed a combined total of 95.8 lbs/day.

The daily OC emissions limit is based on the maximum production capacity of the equipment; therefore, no record keeping, reporting, or testing is required to demonstrate compliance with the daily OC emissions limit.

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

- 2.d** The following organic compound limits shall not be exceeded:

Inks - 3.75 lbs/gal

Fountain Solution - 0.061 lb/gal

Cleanup Material - 6.92 lbs/gal

Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating applied to a lithographic plate to render the nonimage areas unreceptive to ink. Cleanup Material means all materials used to remove excess printing inks, oils and paper components from press equipment.

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the OC content limits, usage limits, the use of a thermal oxidizer with a control efficiency equal to or greater than 90.0 % for OC emissions from the oven exhaust, the continued use of

non-photochemically reactive materials and compliance with the air toxics policy.

- 2.f** Visible particulate emissions from any stack associated with this emission unit shall not exceed 20 percent opacity, as a six minute average, except as specified by rule.
- 2.g** The allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

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The permittee has existing records to demonstrate compliance with this limit upon permit issuance.

- 2.h** The permittee shall operate and maintain a thermal oxidizer, at a minimum, 90.0 % (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions unit R006.

B. Operational Restrictions

1. The following material usages shall not be exceeded:

Inks - 13,000 gallons/year
Fountain Solution - 43,200 gallons/year
Cleanup Material - 880 gallons/year.

Compliance with the annual usage limitations shall be based upon a rolling, 12-month summation.

2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when this emissions unit is in operation shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent performance test that demonstrated compliance with the 90.0 percent overall OC destruction efficiency requirement.
3. All cleanup material usage is considered to be evaporated.
4. Solvent soiled rags shall be stored in closed containers.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following:
 - a. The name and identification of each ink, fountain solution and cleanup material employed, as applied.
 - b. An identification of each ink, fountain solution and cleanup material employed, indicating whether or not each ink, fountain solution and cleanup material is a photochemically reactive material.
 - c. The OC content of each ink, fountain solution and cleanup material, as applied, in pounds per gallon.
 - d. The number of gallons of each ink, fountain solution and cleanup material employed.

- e. The rolling, 12-month summation of usage in gallons of each ink, fountain solution and cleanup material employed.
- f. The OC emissions from all inks, as calculated using the equation in term E.6, in tons per month.
- g. The rolling, 12-month summation of the total OC emissions from all inks, i.e., the sum of (f) for the previous 12 calendar months, in tons per year.
- h. The OC emissions from all inks, fountain solutions and cleanup materials, as calculated using the equation in term E.6, in tons per month.
- i. The updated rolling, 12-month summation of the total OC emissions from all inks, fountain solutions and cleanup materials, i.e., the sum of (h) for the previous 12 calendar months, in tons per year.

Monthly records shall be completed within 15 days following the end of each calendar month.

- 2. The permittee shall collect and record the following information each month for the entire facility:
 - a. The name and identification number of each ink, fountain solution and cleanup material employed.
 - b. The individual Hazardous Air Pollutant (HAP)* content for each HAP of each ink, fountain solution and cleanup material employed in pounds of individual HAP per gallon of material, as applied.
 - c. The total combined HAP content of each ink, fountain solution and cleanup material employed in pounds of combined HAPs per gallon of material, as applied [sum all the individual HAP contents from (b)].
 - d. The number of gallons of each ink, fountain solution and cleanup material employed.
 - e. The total individual HAP emissions for each HAP from all ink, fountain solution and cleanup material employed, in pounds or tons per month [for each HAP the sum of (b) times (d)].
 - f. The total combined HAP emissions from all ink, fountain solution and cleanup material employed, in pounds or tons per month [the sum of (c) times (d)].

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- g. The updated rolling, 12-month summation of the individual HAP emissions for each HAP from each ink, fountain solution and cleanup material employed, in pounds or tons.
- h. The updated rolling, 12-month summation of the combined HAP emissions for all HAP from each ink, fountain solution and cleanup material employed, in pounds or tons.

- * A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when this emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated compliance with the 90.0 percent overall OC destruction efficiency requirement.
- b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
4. The permit to install for this emissions unit (R006) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, 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: Stoddard Solvent

TLV (ug/m3): 572,600

Maximum Hourly Emission Rate (lbs/hr): 9.0

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3) : 291

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 13,633

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.

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.
5. The permittee shall maintain for this facility all purchase orders and invoices of OC-containing materials. The permittee shall retain such purchase orders and invoices for at least five years from

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their date of issuance. Upon request, the permittee shall make available to the Director of the Ohio EPA, or an authorized representative of the Director, such purchase orders and invoices for use in confirming the general accuracy of the records maintained and the reports submitted regarding material usage.

D. Reporting Requirements

1. 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 material(s) emitted each such day. The report shall be submitted within 30 days after the end of that month in which the exceedance occurred, to the Hamilton County Department of Environmental Services.
2. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedance of the HAP emissions limitations in term A.2.g.. The report shall be submitted within 30 days after the end of that rolling, 12-month period in which the exceedance occurred, to the Hamilton County Department of Environmental Services stating that the HAP emissions limitation was exceeded. Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

In addition, the permittee shall submit annual reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year. If no exceedances occurred during the reporting period then a report is required stating so.

3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term B.2. The report shall be submitted within 30 days after the end of that month in which the exceedance occurred, to the Hamilton County Department of Environmental Services.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying any exceedance of the annual emission limits of 1.95 tons of OC per year based on a rolling, 12-month summation from the oven exhaust (ink only) and 6.31 tons of OC per year from all materials based on a rolling, 12-month summation (including inks, fountain solutions and cleanup materials). The notification shall include a copy of each such record, an explanation for the exceedance and what is being done to correct the violation. The notification shall be submitted within 30 days after the end of that rolling 12-month period in which the exceedance occurred. Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.
5. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of usages in gallons from the inks, fountain solution and cleanup material for emissions

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unit R006 for each calendar month. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

6. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying inks, fountain solution and/or cleanup material (i.e., Organic Compound Limits). The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

E. Testing Requirements

1. OAC rule 3745-21-10(B) shall be used to determine the OC contents of the inks, fountain solutions, and cleanup materials. If pursuant to 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or Method 24A cannot be used, the permittee shall notify the Administrator of USEPA and shall use formulation data for the material to demonstrate compliance until USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
2. Compliance with the visible particulate emission limitation in term A.1 shall be demonstrated by Method 9, 40 CFR Part 60, Appendix A.
3. Compliance with the usage limitation in term B.1 shall be determined by the recordkeeping in term C.1.
4. Compliance with the HAP emission limitation in term A.2.g shall be determined by the record keeping in term C.2.
5. Compliance with the photochemically reactive material limitation in term A.2.c shall be demonstrated by the record keeping in term C.1.
6. Compliance with the annual OC emissions outlined in this permit shall be demonstrated by multiplying the OC content in pounds per gallon times the material usage rate in gallons times the retention rate consistent with Ohio EPA Engineering guide #56 times (1- control efficiency of thermal oxidizer*)

ink emissions

20 percent of the OC's in heatset inks are retained by the substrate, 80 percent goes to the dryer. Dryer emissions are vented to a thermal incinerator with a 90 percent control efficiency as demonstrated in the following equation:

gallons of ink/year X pounds of OC/gallon of ink X (1-.20) X (1-.90) X ton/2000 lbs = TPY OC

fountain solution emissions

fountain solution emissions were calculated as fugitive emissions assuming no retention .

fugitive OC emissions = gallons of fountain solution/year X pounds OC/gallon of fountain solution ton/2000 lbs= TPY OC emissions that are fugitive

cleanup material emissions

emission unit R006 does not employ an automatic blanket wash system so 100 percent of the cleanup material is emitted as demonstrated in the following equation:

gallons of cleanup material/year X pounds OC/ gallon cleanup solvent X ton/2000 lb = TPY OC from cleanup material

F. Miscellaneous Requirements

1. The terms and conditions in this permit to install shall supersede permit to install 14-04567 issued on August 19,1998 for this emissions unit.
2. The following terms and conditions of this permit are federally enforceable: A, B, C.1 - C.3, C.5, D and E.

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>
R009 - 5-unit sheetfed offset press	OAC rule 3745-31-05(A)(3) OAC rule 3745-21-07(G)	See term A.2.a, A.2.b and A.2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3744-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a The OC emissions from all materials (including inks, fountain solutions and cleanup materials) shall not exceed a combined total of 0.58 lb/hour (ink and fountain solution, only), 27.7 lbs/day and 2.98 tons/year.

The hourly and daily OC emissions limits are based on the maximum production capacity of the equipment; therefore, no record keeping, reporting, or testing is required to demonstrate compliance with the hourly or daily OC emission limits.

Compliance with the annual OC emissions limit shall be determined by a rolling, 12-month summation.

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

- 2.c The following organic compound limits shall not be exceeded:

Inks - 3.75 lbs/gal
 Fountain Solution - 0.16 lb/gal
 Cleanup Material - 6.92 lbs/gal

Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating applied to a lithographic plate to render the non-image areas unreceptive to ink. Cleanup Material means all materials used to remove excess printing inks, oils and paper components from press equipment.

- 2.d** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the OC content limits, usage limits, the continued use of non-photochemically reactive materials and compliance with the air toxics policy.
- 2.e** The allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with this limit upon permit issuance.

B. Operational Restrictions

1. The following material usages shall not be exceeded:

Inks - 8,250 gallons/year
 Fountain Solution - 10,400 gallons/year
 Cleanup Material - 400 gallons/year.

Compliance with the annual usage limitations shall be based upon a rolling, 12-month summation.

2. All cleanup material usage is considered to be evaporated.
3. Solvent soiled rags shall be stored in closed containers.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following:
- a. The name and identification of each ink, fountain solution and cleanup material employed,

as applied.

- b. An identification of each ink, fountain solution and cleanup material employed, indicating whether or not each ink, fountain solution and cleanup material is a photochemically reactive material.
- c. The OC content of each ink, fountain solution and cleanup material, as applied, in pounds per gallon.
- d. The number of gallons of each ink, fountain solution and cleanup material employed.
- e. The rolling, 12-month summation of usage in gallons of each ink, fountain solution and cleanup material employed.
- f. The OC emissions from all inks, fountain solutions and cleanup materials, as calculated using the equation in term E.5, in tons per month.
- g. The updated rolling, 12-month summation of the total OC emissions from all inks, fountain solutions and cleanup materials, i.e., the sum of (f) for the previous 12 calendar months, in tons per year.

Monthly records shall be completed within 15 days following the end of each calendar month.

2. The permittee shall collect and record the following information each month for the entire facility:
 - a. The name and identification number of each ink, fountain solution and cleanup material employed.
 - b. The individual Hazardous Air Pollutant (HAP)* content for each HAP of each ink, fountain solution and cleanup material employed in pounds of individual HAP per gallon of material, as applied.
 - c. The total combined HAP content of each ink, fountain solution and cleanup material employed in pounds of combined HAPs per gallon of material, as applied [sum all the individual HAP contents from (b)].
 - d. The number of gallons of each ink, fountain solution and cleanup material employed.
 - e. The total individual HAP emissions for each HAP from all ink, fountain solution and cleanup material employed, in pounds or tons per month [for each HAP the sum of (b)

times (d)].

- f. The total combined HAP emissions from all ink, fountain solution and cleanup material employed, in pounds or tons per month [the sum of (c) times (d)].
 - g. The updated rolling, 12-month summation of the individual HAP emissions for each HAP from each ink, fountain solution and cleanup material employed, in pounds or tons.
 - h. The updated rolling, 12-month summation of the combined HAP emissions for all HAP from each ink, fountain solution and cleanup material employed, in pounds or tons.
- * A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.
3. The permit to install for this emissions unit (R009) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, 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: Stoddard Solvent

TLV (ug/m3): 572,600

Maximum Hourly Emission Rate (lbs/hr): 0.58

Predicted 1 Hour Maximum Ground-Level Concentration : 32.5

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 13,633

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

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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.

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.
4. The permittee shall maintain for this facility all purchase orders and invoices of OC-containing materials. The permittee shall retain such purchase orders and invoices for at least five years from their date of issuance. Upon request, the permittee shall make available to the Director of the Ohio EPA, or an authorized representative of the Director, such purchase orders and invoices for use in confirming the general accuracy of the records maintained and the reports submitted regarding material usage.

D. Reporting Requirements

1. 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 material(s) emitted each such day. The report shall be submitted within 30 days after the end of that month in which the exceedance occurred, to the Hamilton County Department of Environmental Services.
2. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedance of the HAP emissions limitations in term A.2.e. The report shall be submitted within 30 days after the end of that rolling, 12-month period in which the exceedance occurred, to the Hamilton County Department of Environmental Services stating that the HAP emissions limitation was exceeded. Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

In addition, the permittee shall submit annual reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year. If no exceedances occurred during the reporting

period then a report is required stating so.

3. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying any exceedance of the annual emission limits of 2.98 tons of OC per year based on a rolling, 12-month summation (including inks, fountain solutions and cleanup materials). The notification shall include a copy of each such record, an explanation for the exceedance and what is being done to correct the violation. The notification shall be submitted within 30 days after the end of that rolling 12-month period in which the exceedance occurred. Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.
4. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of usages in gallons from the inks, fountain solution and cleanup material for emissions unit R009 for each calendar month. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying inks, fountain solution and/or cleanup material (i.e., Organic Compound Limits). The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

E. Testing Requirements

1. OAC rule 3745-21-10(B) shall be used to determine the OC contents of the inks, fountain solutions, and cleanup materials. If pursuant to 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or Method 24A cannot be used, the permittee shall notify the Administrator of USEPA and shall use formulation data for the material to demonstrate compliance until USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
2. Compliance with the usage limitation in term B.1 shall be determined by the recordkeeping in term C.1.
3. Compliance with the HAP emission limitation in term A.2.e shall be determined by the record keeping in term C.2.
4. Compliance with the photochemically reactive material limitation in term A.2.b shall be demonstrated by the record keeping in term C.1.
5. Compliance with the annual OC emissions outlined in this permit shall be demonstrated by

S Rosenthal and Co Inc
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Facility ID: 1431052165

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multiplying the OC content in pounds per gallon times the material usage rate in gallons times the retention rate consistent with Ohio EPA Engineering guide #56 times (1- control efficiency of thermal oxidizer*)

ink emissions

20 percent of the OC's in heatset inks are retained by the substrate, 80 percent goes to the dryer.

gallons of ink/year X pounds of OC/gallon of ink X (1-.20) X ton/2000 lbs = TPY OC

fountain solution emissions

fountain solution emissions were calculated as fugitive emissions assuming no retention .

fugitive OC emissions = gallons of fountain solution/year X pounds OC/gallon of fountain solution ton/2000 lbs= TPY OC emissions that are fugitive

cleanup material emissions

emission unit R009 does not employ an automatic blanket wash system so 100 percent of the cleanup material is emitted as demonstrated in the following equation:

gallons of cleanup material/year X pounds OC/ gallon cleanup solvent X ton/2000 lb = TPY OC from cleanup material

F. Miscellaneous Requirements

1. The terms and conditions in this permit to install shall supersede permit to install 14-04567 issued on August 19,1998 for this emissions unit.
2. The following terms and conditions of this permit are federally enforceable: A, B, C.1, C.2, C.4, D and E.