



State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

08/18/00

**CERTIFIED MAIL**

**RE: Draft Title V Chapter 3745-77 permit**

03-39-03-0135

R. R. Donnelley & Sons Company  
Christopher John Hassmann  
1145 Conwell Avenue  
Willard, OH 44888-0002

Dear Christopher John Hassmann:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by Northwest District Office within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled.

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

**If you have any questions or comments concerning this draft Title V permit, please contact Northwest District Office.**

Very truly yours,

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

cc: USEPA  
Jim Orlemann, DAPC Engineering  
Michael Ahern, DAPC PMU  
Northwest District Office  
Michigan



## Ohio EPA

State of Ohio Environmental Protection Agency

### TITLE V PERMIT

Issue Date: 08/18/00

**DRAFT**

Effective Date:

Expiration Date:

This document constitutes issuance to:

R. R. Donnelley & Sons Company  
1145 Conwell Avenue  
Willard, OH 44888-0002

of a Title V permit for Facility ID: 03-39-03-0135

Emissions Unit ID (Company ID)/  
Emissions Unit Activity Description:

B001 (Boiler #1)  
Clever Brooks Boiler #1 w/Oil Back Up (10.461 MMBTU/HR)

B004 (Boiler #2)  
Clever Brooks Boiler #2 w/Oil Back Up (10.461 MMBTU/HR)

K002 (OSM-333)  
Web Offset Heatset Printing

K003 (OSM-332)  
Web Offset Heatset Printing

K004 (OMW-322)  
Web Offset Heatset Printing

K006 (OMW-323)  
Web Offset Heatset Printing

K007 (OSM-324)  
Web Offset Heatset Printing

K008 (OSM-334)  
Web Offset Heatset Printing

K009 (OSM-335)  
Web Offset Heatset Printing

K010 (OMW-326)  
Web Offset Heatset Printing

K011 (OSM-336)  
Web Offset Heatset Printing

K012 (OSM-380)  
Web Offset Heatset Printing

K013 (OMW-320)  
Web Offset Heatset Printing

K014 (OSM-331)  
Web Offset Heatset Printing

K015 (OMW-350)  
Web Offset Heatset Printing

K016 (OMW-351)  
Web Offset Heatset Printing

K018 (OSM-327)  
Web Offset Heatset Printing

K019 (OSM-341)  
Sheetfed UV Press

K020 (OSM-342)  
Sheetfed UV Press

N002 (Incinerator w/Heat Recovery)  
Incinerator w/Heat Recovery

P009 (Paper Separation Process #4 (cyclone))  
Paper/Air Separation Process

P014 (Paper Separation Process #6 (cyclone))  
Paper/Air Separation Process

P015 (Paper Separation Process #7 (cyclone))  
Paper/Air Separation Process

P021 (Book Binding Line #5)  
Book Binding Line

P022 (Book Binding Line #6)  
Book Binding Line

P023 (Book Binding Line #7)  
Book Binding Line

P024 (Book Binding Line #9)  
Book Binding Line

P025 (Book Binding Line #10)  
Book Binding Line

P026 (Book Binding Line 48 Box)  
Book Binding Line

P027 (Paper Separation Process #5 (cyclone))  
Paper/Air Separation Process

P028 (Paper Separation Process #1 (cyclone))  
Paper/Air Separation Process

P029 (Paper Separation Process #2 (cyclone))  
Paper/Air Separation Process

P030 (Paper Separation Process #3 (cyclone))  
Paper/Air Separation Process

P031 (Paper Separation Process #8 (cyclone))  
Paper/Air Separation Process

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Northwest District Office  
347 North Dunbridge Road  
Bowling Green, OH 43402  
(419) 352-8461

**OHIO ENVIRONMENTAL PROTECTION AGENCY**

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Christopher Jones  
Director

# **PART I - GENERAL TERMS AND CONDITIONS**

## **A. State and Federally Enforceable Section**

### **1. Monitoring and Related Recordkeeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. 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 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written 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.) See B.8 below if no deviations occurred during the quarter.
  - iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting

requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## **2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

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 emission unit(s) that is (are) served by such control system(s).

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

## **6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. 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 request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## **7. 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.

## **8. Marketable Permit Programs**

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

## **9. Reasonably Anticipated Operating Scenarios**

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

## **10. Reopening for Cause**

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

## **11. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## **12. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to

the appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:

- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
- ii. Compliance certifications shall include the following:
  - (a) An identification of each term or condition of this permit that is the basis of the certification.
  - (b) The permittee's current compliance status.
  - (c) Whether compliance was continuous or intermittent.
  - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
  - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
- iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

### **13. Permit Shield**

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

### **14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

### **15. Emergencies**

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

## **16. Off Permit Changes**

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;
- b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

## **17. Compliance Method Requirements**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

## **B. State Only Enforceable Section**

### **1. Permit to Install Requirement**

Prior to the “installation” or “modification” of any “air contaminant source,” as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

### **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. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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.

## Part II - Specific Facility Terms and Conditions

### A. State and Federally Enforcable Section

1. Risk Management Plans: If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

### B. State Only Enforceable Section

1. The following insignificant emissions units are located at this facility:

Boiler #3, Ohio EPA emissions unit B003;  
Boiler #4, Ohio EPA emissions unit Z007; and  
Underground Storage Tank #14, Ohio EPA emissions unit T006.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a Permit to Install for the emissions unit.

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Boiler #2 (B004)

**Activity Description:** Cleaver Brooks Boiler #2 w/Oil Back Up (10.461 MMBTU/HR)

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
10.5 mmBtu/hour natural gas-fired boiler #2 (with number 2 fuel oil as back-up)	OAC rule 3745-17-10(B)	0.020 pound particulate emissions (PE)/mmBtu of actual heat input
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20 percent opacity, as a six-minute average, except as otherwise provided by rule.
	OAC rule 3745-18-06(D)	1.6 pounds sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input

##### 2. Additional Terms and Conditions

- This emissions unit was installed prior to June 9, 1989 and, therefore, is not subject to 40 CFR Part 60, Subpart Dc.

##### II. Operational Restrictions

- The permittee shall burn only natural gas and/or number 2 fuel oil as fuel in this emissions unit.
- The quality of oil burned in this emissions unit shall meet, on an as-received basis, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 lbs SO<sub>2</sub>/mmBtu of actual heat input.

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas and/or number 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch and the quality of the oil for those loads may be represented by a single batch analysis from the supplier. Also, if necessary, the permittee shall maintain monthly records of the calculated sulfur dioxide emission rate based upon a volume-weighted average of the calculated sulfur dioxide emission rates for all shipments of oil during a calendar month.

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number 2 fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall notify the NWDO in writing of any record that shows a deviation of the allowable sulfur dioxide limitation specified in Section A.I.1 of this permit. The notification shall include a copy of such record and shall be sent to the NWDO within 45 days after the deviation occurs.

### V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation:  
0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method:

When firing natural gas, the permittee shall demonstrate compliance by multiplying an emission factor of 1.9 lbs PE (filterable)/mmcu. ft. of natural gas by the emissions unit's maximum hourly fuel consumption rate (10,461 cu. ft./hr), and then dividing by the emissions unit's maximum heat input capacity (10.5 mmBtu/hr).

When firing #2 fuel oil or a combination of #2 fuel oil and natural gas, the permittee shall demonstrate compliance by multiplying an emission factor of 2 lbs PE/1,000 gallons of oil by the emissions unit's maximum hourly fuel consumption rate (75 gallons/hr), and then dividing by the emissions unit's maximum heat input capacity (10.5 mmBtu/hr).

If required, the permittee shall demonstrate compliance with the PE limitation above in accordance with the procedures and methods specified in OAC 3745-17-03(B)(9).

- 1.b Emission Limitation:  
Visible PE shall not exceed 20 percent opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method:  
OAC rule 3745-17-03(B)(1)

## **V. Testing Requirements (continued)**

- 1.c** Emission Limitation:  
1.6 pounds SO<sub>2</sub>/mmBtu of actual heat input

**Applicable Compliance Method:**

When firing fuel oil, except as provided below, compliance with the allowable SO<sub>2</sub> emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

If the sulfur content of each shipment of oil received during a calendar month does not comply with the allowable emission limitation on an "as-received" basis, compliance with the allowable SO<sub>2</sub> emission limitation shall be based upon a volume-weighted average of the calculated SO<sub>2</sub> emission rates for all of the shipments of oil during the calendar month.

If required, the permittee shall demonstrate compliance with this emission limitation (when firing # 2 fuel oil) in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6C.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OSM-333 (K002)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OSM-333)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 PTI # 03-909	None.

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

##### II. Operational Restrictions

1. The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

Facility Name: **R. R. Donnelley & Sons Company**

Facility ID: **03-39-03-0135**

Emissions Unit: **OSM-333 (K002)**

#### **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.

#### **V. Testing Requirements**

**None**

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OSM-332 (K003)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OSM-332)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 PTI # 03-379	None.

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

##### II. Operational Restrictions

1. The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

Facility Name: **R. R. Donnelley & Sons Company**

Facility ID: **03-39-03-0135**

Emissions Unit: **OSM-332 (K003)**

#### **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.

#### **V. Testing Requirements**

**None**

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OMW-322 (K004)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OMW-322)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 PTI # 03-1682	None.

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

##### II. Operational Restrictions

1. The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

**IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OMW-323 (K006)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OMW-323), with thermal oxidizer #1	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-2749)	See sections A.2.c and A.2.d of the terms and conditions of this permit.

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c Emissions of organic compounds (OC) from the dryer that is associated with this emissions unit shall be controlled by a thermal oxidizer. The thermal oxidizer shall meet a requirement of 100 percent capture efficiency of all OC emitted in the dryer and a minimum destruction efficiency of 90 percent (by weight) for the OC.
- 2.d In lieu of complying with A.I.2.c above, the OC emissions from the dryer (stack) shall not exceed 3.0 pounds/hour. (However, the permittee has chosen to comply with A.I.2.c rather than A.I.2.d.)

##### II. Operational Restrictions

1. The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1300 degrees Fahrenheit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.
2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature 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.
3. The permittee shall collect and record the following information each day for this emissions unit:
  - 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 less than 1300 degrees Fahrenheit; and
  - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
2. The permittee shall submit quarterly deviation (excursion) reports that 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 section A.II.2 of the terms and conditions of this permit.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time when the emissions unit was in operation and the capture (collection) system, control device, and/or monitoring equipment were down.

### V. Testing Requirements

1. Within 6 months of the issuance of this permit and approximately every 2.5 years thereafter, the permittee shall conduct, or have conducted, performance testing for this emissions unit in order to demonstrate compliance with the required capture efficiency and destruction efficiency for the thermal incinerator. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. The destruction efficiency shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds between the inlet and outlet of the vapor control system. The test method selected shall be based on a consideration of the diversity of organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. The test(s) shall be conducted while the emissions unit is operating at its maximum rated capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## V. Testing Requirements (continued)

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

3. Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitations:

90 percent destruction efficiency (by weight) for OC

100% capture efficiency for OC

3.0 pounds OC/hour

Applicable Compliance Method:

The permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with the methods and procedures outlined in section V.1 of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OSM-324 (K007)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OSM-324), with thermal oxidizer #1	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-2749)	11.8 lbs organic compounds (OC)/hr, including cleanup, from the dryer stack
		See section A.2.c of the terms and conditions of this permit.

##### 2. Additional Terms and Conditions

- The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- Emissions of OC from the dryer that is associated with this emissions unit shall be controlled by a thermal oxidizer. The thermal oxidizer shall meet a requirement of 100 percent capture efficiency of all OC emitted in the dryer and a minimum destruction efficiency of 90 percent (by weight) for the OC.

##### II. Operational Restrictions

- The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
- The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1300 degrees Fahrenheit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.
2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature 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.
3. The permittee shall collect and record the following information each day for this emissions unit:
  - 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 less than 1300 degrees Fahrenheit; and
  - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
2. The permittee shall submit quarterly deviation (excursion) reports that 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 section A.II.2 of the terms and conditions of this permit.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time when the emissions unit was in operation and the capture (collection) system, control device, and/or monitoring equipment were down.

### V. Testing Requirements

1. Within 6 months of the issuance of this permit and approximately every 2.5 years thereafter, the permittee shall conduct, or have conducted, performance testing for this emissions unit in order to demonstrate compliance with the hourly allowable OC emission rate and the required capture efficiency and destruction efficiency for the thermal incinerator. Method 25 of 40 CFR Part 60, Appendix A shall be used to determine the hourly emission rate for OC. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. The destruction efficiency shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds between the inlet and outlet of the vapor control system. The test method selected shall be based on a consideration of the diversity of organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. The test(s) shall be conducted while the emissions unit is operating at its maximum rated capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## V. Testing Requirements (continued)

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

3. Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitations:

90 percent destruction efficiency (by weight) for OC

100% capture efficiency for OC

11.8 pounds OC/hour

Applicable Compliance Method:

The permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with the methods and procedures outlined in section V.1 of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OSM-334 (K008)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OSM-334)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 PTI # 03-935	None.

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

##### II. Operational Restrictions

1. The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

Facility Name: **R. R. Donnelley & Sons Company**

Facility ID: **03-39-03-0135**

Emissions Unit: **OSM-334 (K008)**

#### **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.

#### **V. Testing Requirements**

**None**

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OSM-335 (K009)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OSM-335), with thermal oxidizer #2	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-7171)	15.3 pounds organic compounds (OC)/hour (from the usage of inks, fountain solutions and blanket wash materials)
		38.2 tons OC/year (from the usage of inks, fountain solutions and blanket wash materials)
		0.10 particulate emissions (PE)/hour (from the burning of natural gas in the dryer)
		0.44 ton PE/year (from the burning of natural gas in the dryer)

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c Emissions of OC from the dryer that is associated with this emissions unit shall be controlled by a thermal oxidizer. The thermal oxidizer shall meet a requirement of 100 percent capture efficiency of all OC emitted in the dryer and a minimum destruction efficiency of 90 percent (by weight) for the OC.

## **2. Additional Terms and Conditions (continued)**

- 2.d** The 15.3 lbs OC/hour, 0.10 lb PE/hour and 0.44 ton PE/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

## **II. Operational Restrictions**

- 1.** The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
- 2.** The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1300 degrees Fahrenheit.
- 3.** The permittee shall comply with the following OC content restrictions for the graphic arts materials employed in this emissions unit:
  - a. for inks : 0.45 lb OC/lb of ink, as applied;
  - b. for fountain solutions : 0.25 lb OC /gallon of fountain solution, as applied; and
  - c. for cleanup (blanket wash) materials: 7.5 lbs OC/gallon of cleanup material, as applied.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.
- 2.** The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature 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.
- 3.** The permittee shall collect and record the following information each day for this emissions unit:
  - 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 less than 1300 degrees Fahrenheit; and
  - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the emissions unit was in operation.

### III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain monthly records which list the following information for the graphic arts materials (ink, fountain solution and blanket wash) employed in this emissions unit:
  - a. the name and identification number of each graphic arts material employed;
  - b. the quantity of each graphic arts material employed, in pounds for inks and in gallons for other materials;
  - c. the OC content of each graphic arts material, in pounds/pound for inks and in pounds/gallon for other materials, as applied; and
  - d. the total OC emission rate of all graphic arts materials employed, in tons, calculated as follows:
    - i. for inks:
      - (a) multiply the usage rate of each ink (lbs) by the OC content of each ink (lbs/lb), as applied;
      - (b) sum (a) for all the inks employed;
      - (c) multiply (b) by the factor  $(1 - 0.2)$  [the percentage of the solvent retained in the web, after the dryer, is 20 percent\*]; and
      - (d) multiply (c) by the overall control factor of the thermal oxidizer  $(1 - .90)$ .
    - ii. for fountain solutions:
      - (a) multiply the usage rate of each fountain solution (gallons) by the OC content of each fountain solution (lbs/gallon), as applied;
      - (b) sum (a) for all the fountain solutions employed;
      - (c) multiply (b) by the factor  $(1 - 0.3)$  [the percentage of the fugitive emissions of OC is 30 percent\*];
      - (d) multiply (c) by the overall control factor of the thermal oxidizer  $(1 - .90)$ ; and
      - (e) multiply (b) by the factor  $0.3$  [the percentage of the fugitive emissions of OC is 30 percent\*].

### III. Monitoring and/or Record Keeping Requirements (continued)

iii. for auto blanket wash:

(a) multiply the usage rate of each auto blanket wash by the OC content of each auto blanket wash, as applied;

(b) sum (a) for all the auto blanket wash materials employed;

(c) multiply (b) by the factor (1 - 0.6) [the percentage of the fugitive emissions of OC is 60 percent\*];

(d) multiply (c) by the overall control factor of the thermal oxidizer (1 - .90); and

(e) multiply (b) by the factor 0.6 [the percentage of the fugitive emissions of OC is 60 percent\*].

iv. for hand blanket wash:

(a) multiply the usage rate of each hand blanket wash by the OC content of each auto blanket wash, as applied;

(b) sum (a) for all the hand blanket wash materials employed; and

(c) multiply (b) by the percentage not retained on the cloths (1 - .75)\*\*.

v. sum [i(d) + ii(d) + ii(e) + iii(d) + iii(e) + iv (c)] and divide by 2000.

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying inks, fountain solutions and/or blanket wash materials (i.e., for OC contents) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer did not comply with the temperature limitation specified in section A.II.2 of the terms and conditions of this permit.
4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time when the emissions unit was in operation and the capture (collection) system, control device, and/or monitoring equipment were down.
5. The permittee shall submit annual reports that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

## V. Testing Requirements

1. Within 6 months of the issuance of this permit and approximately every 2.5 years thereafter, the permittee shall conduct, or have conducted, performance testing for this emissions unit in order to demonstrate compliance with the hourly allowable OC emission rate and the required capture efficiency and destruction efficiency for the thermal incinerator. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. The destruction efficiency shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds between the inlet and outlet of the vapor control system. The test method selected shall be based on a consideration of the diversity of organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. The test(s) shall be conducted while the emissions unit is operating at its maximum rated capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

3. Compliance Methods Requirements: Compliance with the emission limitations in section B.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

## V. Testing Requirements (continued)

### 3.a Emission Limitations: 15.3 lbs OC/hr

Applicable Compliance Method:

OC emissions from this emissions unit shall be calculated as follows:

i. for inks:

(a) multiply the maximum inks usage rate (lbs/hr) by the maximum OC content of all the inks (lbs/lb), as applied;

(b) multiply (a) by the factor (1 - 0.2) [the percentage of the solvent retained in the web, after the dryer, is 20 percent\*]; and

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90).

ii. for fountain solutions:

(a) multiply the maximum fountain solutions usage rate (gallons/hr) by the maximum OC content of all the fountain solutions (lbs/gallon), as applied;

(b) multiply (a) by the factor (1 - 0.3) [the percentage of the fugitive emissions of OC is 30 percent\*];

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90); and

(d) multiply (a) by 0.3 [the percentage of the fugitive emissions of OC is 30 percent\*].

iii. for auto blanket wash:

(a) multiply the maximum auto blanket wash materials usage rate (gallons/hr) by the maximum OC content of all the auto blanket wash materials, as applied;

(b) multiply (a) by the factor (1 - 0.6) [the percentage of the fugitive emissions of OC is 60 percent\*];

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90); and

(d) multiply (a) by 0.6 [the percentage of the fugitive emissions of OC is 60 percent\*].

iv. for hand blanket wash:

(a) multiply the maximum hand blanket wash materials usage rate (gallons/hr) by the maximum OC content of all the auto blanket wash materials, as applied;

(b) multiply (a) by the percentage not retained on the cloths (1 - .75)\*\*.

v. sum i(c) + ii(c) + ii(d) + iii(c) + iii(d) + iv (b)

If required, the method to be employed to demonstrate compliance with the hourly emission limitation shall be Method 25 of 40 CFR Part 60, Appendix A.

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

## V. Testing Requirements (continued)

- 3.b** Emission Limitations:  
0.10 pound PE/hour  
0.44 TPY PE

**Applicable Compliance Method:**

The permittee may demonstrate compliance by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 pounds PE (filterable)/million cubic feet of natural gas by the dryer's maximum hourly fuel consumption rate (mmcu ft./hour).

If required, the methods to be employed to demonstrate compliance with the hourly emission limitation shall be Methods 1 - 5 of 40 CFR Part 60, Appendix A.

The annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000. Therefore, compliance with the annual emission limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

- 3.c** Emission Limitation:  
38.2 TPY OC

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the annual limitation above based on the record keeping requirements in section A.III.4 and shall be the sum of the monthly OC emissions for the calendar year.

- 3.d** Efficiency Limitation:  
100% capture efficiency for OC  
90% destruction efficiency for OC  
15.3 lbs OC/hour

**Applicable Compliance Method:**

The permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with the methods and procedures outlined in section V.1 of this permit.

- 3.e** Emission Limitations:  
for inks : 0.45 lb OC/lb of ink, as applied  
for fountain solutions : 0.25 lb OC /gallon of fountain solution, as applied  
for cleanup materials : 7.5 lbs OC/gallon of cleanup material, as applied

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the limitations above based on the record keeping requirements specified in section A.III.4 of this permit.

- 4.** Formulation data or USEPA Methods 24 and/or 24A shall be used to determine the OC contents of all the inks, fountain solutions and blanket wash materials.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** OMW-326 (K010)  
**Activity Description:** Web Offset Heatset Printing

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OMW-326), with thermal oxidizer #2	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-7171)	13.7 pounds organic compounds (OC)/hour (from the usage of inks, fountain solutions and blanket wash materials)
		34.2 tons OC/year (from the usage of inks, fountain solutions and blanket wash materials)
		0.10 particulate emissions (PE)/hour (from the burning of natural gas in the dryer)
		0.44 ton PE/year (from the burning of natural gas in the dryer)

**2. Additional Terms and Conditions**

- The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- Emissions of OC from the dryer that is associated with this emissions unit shall be controlled by a thermal oxidizer. The thermal oxidizer shall meet a requirement of 100 percent capture efficiency of all OC emitted in the dryer and a minimum destruction efficiency of 90 percent (by weight) for the OC.

## **2. Additional Terms and Conditions (continued)**

- 2.d** The 13.7 lbs OC/hour, 0.10 lb PE/hour and 0.44 ton PE/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

## **II. Operational Restrictions**

- 1.** The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
- 2.** The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1300 degrees Fahrenheit.
- 3.** The permittee shall comply with the following OC content restrictions for the graphic arts materials employed in this emissions unit:
  - a. for inks : 0.45 lb OC/lb of ink, as applied;
  - b. for fountain solutions : 0.25 lb OC /gallon of fountain solution, as applied; and
  - c. for cleanup (blanket wash) materials: 7.5 lbs OC/gallon of cleanup material, as applied.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.
- 2.** The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature 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.
- 3.** The permittee shall collect and record the following information each day for this emissions unit:
  - 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 less than 1300 degrees Fahrenheit; and
  - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the emissions unit was in operation.

### III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain monthly records which list the following information for the graphic arts materials (ink, fountain solution and blanket wash) employed in this emissions unit:
  - a. the name and identification number of each graphic arts material employed;
  - b. the quantity of each graphic arts material employed, in pounds for inks and in gallons for other materials;
  - c. the OC content of each graphic arts material, in pounds/pound for inks and in pounds/gallon for other materials, as applied; and
  - d. the total OC emission rate of all graphic arts materials employed, in tons, calculated as follows:
    - i. for inks:
      - (a) multiply the usage rate of each ink (lbs) by the OC content of each ink (lbs/lb), as applied;
      - (b) sum (a) for all the inks employed;
      - (c) multiply (b) by the factor  $(1 - 0.2)$  [the percentage of the solvent retained in the web, after the dryer, is 20 percent\*]; and
      - (d) multiply (c) by the overall control factor of the thermal oxidizer  $(1 - .90)$ .
    - ii. for fountain solutions:
      - (a) multiply the usage rate of each fountain solution (gallons) by the OC content of each fountain solution (lbs/gallon), as applied;
      - (b) sum (a) for all the fountain solutions employed;
      - (c) multiply (b) by the factor  $(1 - 0.3)$  [the percentage of the fugitive emissions of OC is 30 percent\*];
      - (d) multiply (c) by the overall control factor of the thermal oxidizer  $(1 - .90)$ ; and
      - (e) multiply (b) by the factor  $0.3$  [the percentage of the fugitive emissions of OC is 30 percent\*].

### III. Monitoring and/or Record Keeping Requirements (continued)

iii. for auto blanket wash:

(a) multiply the usage rate of each auto blanket wash by the OC content of each auto blanket wash, as applied;

(b) sum (a) for all the auto blanket wash materials employed;

(c) multiply (b) by the factor (1 - 0.6) [the percentage of the fugitive emissions of OC is 60 percent\*];

(d) multiply (c) by the overall control factor of the thermal oxidizer (1 - .90); and

(e) multiply (b) by the factor 0.6 [the percentage of the fugitive emissions of OC is 60 percent\*].

iv. for hand blanket wash:

(a) multiply the usage rate of each hand blanket wash by the OC content of each auto blanket wash, as applied;

(b) sum (a) for all the hand blanket wash materials employed; and

(c) multiply (b) by the percentage not retained on the cloths (1 - .75)\*\*.

v. sum [i(d) + ii(d) + ii(e) + iii(d) + iii(e) + iv (c)] and divide by 2000.

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying inks, fountain solutions and/or blanket wash materials (i.e., for OC contents) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer did not comply with the temperature limitation specified in section A.II.2 of the terms and conditions of this permit.
4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time when the emissions unit was in operation and the capture (collection) system, control device, and/or monitoring equipment were down.
5. The permittee shall submit annual reports that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

## V. Testing Requirements

1. Within 6 months of the issuance of this permit and approximately every 2.5 years thereafter, the permittee shall conduct, or have conducted, performance testing for this emissions unit in order to demonstrate compliance with the hourly allowable OC emission rate and the required capture efficiency and destruction efficiency for the thermal incinerator. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. The destruction efficiency shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds between the inlet and outlet of the vapor control system. The test method selected shall be based on a consideration of the diversity of organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. The test(s) shall be conducted while the emissions unit is operating at its maximum rated capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

3. Compliance Methods Requirements: Compliance with the emission limitations in section B.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

## V. Testing Requirements (continued)

**3.a** Emission Limitations:  
13.7 lbs OC/hr

Applicable Compliance Method:

OC emissions from this emissions unit shall be calculated as follows:

i. for inks:

(a) multiply the maximum inks usage rate (lbs/hr) by the maximum OC content of all the inks (lbs/lb), as applied;

(b) multiply (a) by the factor (1 - 0.2) [the percentage of the solvent retained in the web, after the dryer, is 20 percent\*]; and

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90).

ii. for fountain solutions:

(a) multiply the maximum fountain solutions usage rate (gallons/hr) by the maximum OC content of all the fountain solutions (lbs/gallon), as applied;

(b) multiply (a) by the factor (1 - 0.3) [the percentage of the fugitive emissions of OC is 30 percent\*];

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90); and

(d) multiply (a) by 0.3 [the percentage of the fugitive emissions of OC is 30 percent\*].

iii. for auto blanket wash:

(a) multiply the maximum auto blanket wash materials usage rate (gallons/hr) by the maximum OC content of all the auto blanket wash materials, as applied;

(b) multiply (a) by the factor (1 - 0.6) [the percentage of the fugitive emissions of OC is 60 percent\*];

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90); and

(d) multiply (a) by 0.6 [the percentage of the fugitive emissions of OC is 60 percent\*].

iv. for hand blanket wash:

(a) multiply the maximum hand blanket wash materials usage rate (gallons/hr) by the maximum OC content of all the auto blanket wash materials, as applied;

(b) multiply (a) by the percentage not retained on the cloths (1 - .75)\*\*.

v. sum i(c) + ii(c) + ii(d) + iii(c) + iii(d) + iv (b)

If required, the method to be employed to demonstrate compliance with the hourly emission limitation shall be Method 25 of 40 CFR Part 60, Appendix A.

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

## V. Testing Requirements (continued)

- 3.b** Emission Limitations:  
0.10 pound PE/hour  
0.44 TPY PE

**Applicable Compliance Method:**

The permittee may demonstrate compliance by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 pounds PE (filterable)/million cubic feet of natural gas by the dryer's maximum hourly fuel consumption rate (mmcu ft./hour).

If required, the methods to be employed to demonstrate compliance with the hourly emission limitation shall be Methods 1 - 5 of 40 CFR Part 60, Appendix A.

The annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000. Therefore, compliance with the annual emission limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

- 3.c** Emission Limitation:  
34.2 TPY OC

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the annual limitation above based on the record keeping requirements in section A.III.4 and shall be the sum of the monthly OC emissions for the calendar year.

- 3.d** Efficiency Limitation:  
100% capture efficiency for OC  
90% destruction efficiency for OC  
13.7 lbs OC/hour

**Applicable Compliance Method:**

The permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with the methods and procedures outlined in section V.1 of this permit.

- 3.e** Emission Limitations:  
for inks : 0.45 lb OC/lb of ink, as applied  
for fountain solutions : 0.25 lb OC /gallon of fountain solution, as applied  
for cleanup materials : 7.5 lbs OC/gallon of cleanup material, as applied

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the limitations above based on the record keeping requirements specified in section A.III.4 of this permit.

- 4.** Formulation data or USEPA Methods 24 and/or 24A shall be used to determine the OC contents of all the inks, fountain solutions and blanket wash materials.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OSM-336 (K011)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OSM-326), with thermal oxidizer #2	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-7171)	14.2 pounds organic compounds (OC)/hour (from the usage of inks, fountain solutions and blanket wash materials)
		35.5 tons OC/year (from the usage of inks, fountain solutions and blanket wash materials)
		0.10 particulate emissions (PE)/hour (from the burning of natural gas in the dryer)
		0.44 ton PE/year (from the burning of natural gas in the dryer)

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c Emissions of OC from the dryer that is associated with this emissions unit shall be controlled by a thermal oxidizer. The thermal oxidizer shall meet a requirement of 100 percent capture efficiency of all OC emitted in the dryer and a minimum destruction efficiency of 90 percent (by weight) for the OC.

## **2. Additional Terms and Conditions (continued)**

- 2.d** The 14.2 lbs OC/hour, 0.10 lb PE/hour and 0.44 ton PE/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

## **II. Operational Restrictions**

- 1.** The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
- 2.** The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1300 degrees Fahrenheit.
- 3.** The permittee shall comply with the following OC content restrictions for the graphic arts materials employed in this emissions unit:
  - a. for inks : 0.45 lb OC/lb of ink, as applied;
  - b. for fountain solutions : 0.25 lb OC /gallon of fountain solution, as applied; and
  - c. for cleanup (blanket wash) materials: 7.5 lbs OC/gallon of cleanup material, as applied.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.
- 2.** The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature 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.
- 3.** The permittee shall collect and record the following information each day for this emissions unit:
  - 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 less than 1300 degrees Fahrenheit; and
  - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the emissions unit was in operation.

### III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain monthly records which list the following information for the graphic arts materials (ink, fountain solution and blanket wash) employed in this emissions unit:
  - a. the name and identification number of each graphic arts material employed;
  - b. the quantity of each graphic arts material employed, in pounds for inks and in gallons for other materials;
  - c. the OC content of each graphic arts material, in pounds/pound for inks and in pounds/gallon for other materials, as applied; and
  - d. the total OC emission rate of all graphic arts materials employed, in tons, calculated as follows:
    - i. for inks:
      - (a) multiply the usage rate of each ink (lbs) by the OC content of each ink (lbs/lb), as applied;
      - (b) sum (a) for all the inks employed;
      - (c) multiply (b) by the factor  $(1 - 0.2)$  [the percentage of the solvent retained in the web, after the dryer, is 20 percent\*]; and
      - (d) multiply (c) by the overall control factor of the thermal oxidizer  $(1 - .90)$ .
    - ii. for fountain solutions:
      - (a) multiply the usage rate of each fountain solution (gallons) by the OC content of each fountain solution (lbs/gallon), as applied;
      - (b) sum (a) for all the fountain solutions employed;
      - (c) multiply (b) by the factor  $(1 - 0.3)$  [the percentage of the fugitive emissions of OC is 30 percent\*];
      - (d) multiply (c) by the overall control factor of the thermal oxidizer  $(1 - .90)$ ; and
      - (e) multiply (b) by the factor  $0.3$  [the percentage of the fugitive emissions of OC is 30 percent\*].

### III. Monitoring and/or Record Keeping Requirements (continued)

iii. for auto blanket wash:

(a) multiply the usage rate of each auto blanket wash by the OC content of each auto blanket wash, as applied;

(b) sum (a) for all the auto blanket wash materials employed;

(c) multiply (b) by the factor (1 - 0.6) [the percentage of the fugitive emissions of OC is 60 percent\*];

(d) multiply (c) by the overall control factor of the thermal oxidizer (1 - .90); and

(e) multiply (b) by the factor 0.6 [the percentage of the fugitive emissions of OC is 60 percent\*].

iv. for hand blanket wash:

(a) multiply the usage rate of each hand blanket wash by the OC content of each auto blanket wash, as applied;

(b) sum (a) for all the hand blanket wash materials employed; and

(c) multiply (b) by the percentage not retained on the cloths (1 - .75)\*\*.

v. sum [i(d) + ii(d) + ii(e) + iii(d) + iii(e) + iv (c)] and divide by 2000.

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying inks, fountain solutions and/or blanket wash materials (i.e., for OC contents) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer did not comply with the temperature limitation specified in section A.II.2 of the terms and conditions of this permit.
4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time when the emissions unit was in operation and the capture (collection) system, control device, and/or monitoring equipment were down.
5. The permittee shall submit annual reports that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

## V. Testing Requirements

1. Within 6 months of the issuance of this permit and approximately every 2.5 years thereafter, the permittee shall conduct, or have conducted, performance testing for this emissions unit in order to demonstrate compliance with the hourly allowable OC emission rate and the required capture efficiency and destruction efficiency for the thermal incinerator. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. The destruction efficiency shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds between the inlet and outlet of the vapor control system. The test method selected shall be based on a consideration of the diversity of organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. The test(s) shall be conducted while the emissions unit is operating at its maximum rated capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

3. Compliance Methods Requirements: Compliance with the emission limitations in section B.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

## V. Testing Requirements (continued)

**3.a** Emission Limitations:  
14.2 lbs OC/hr

Applicable Compliance Method:

OC emissions from this emissions unit shall be calculated as follows:

i. for inks:

(a) multiply the maximum inks usage rate (lbs/hr) by the maximum OC content of all the inks (lbs/lb), as applied;

(b) multiply (a) by the factor (1 - 0.2) [the percentage of the solvent retained in the web, after the dryer, is 20 percent\*]; and

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90).

ii. for fountain solutions:

(a) multiply the maximum fountain solutions usage rate (gallons/hr) by the maximum OC content of all the fountain solutions (lbs/gallon), as applied;

(b) multiply (a) by the factor (1 - 0.3) [the percentage of the fugitive emissions of OC is 30 percent\*];

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90); and

(d) multiply (a) by 0.3 [the percentage of the fugitive emissions of OC is 30 percent\*].

iii. for auto blanket wash:

(a) multiply the maximum auto blanket wash materials usage rate (gallons/hr) by the maximum OC content of all the auto blanket wash materials, as applied;

(b) multiply (a) by the factor (1 - 0.6) [the percentage of the fugitive emissions of OC is 60 percent\*];

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90); and

(d) multiply (a) by 0.6 [the percentage of the fugitive emissions of OC is 60 percent\*].

iv. for hand blanket wash:

(a) multiply the maximum hand blanket wash materials usage rate (gallons/hr) by the maximum OC content of all the auto blanket wash materials, as applied;

(b) multiply (a) by the percentage not retained on the cloths (1 - .75)\*\*.

v. sum i(c) + ii(c) + ii(d) + iii(c) + iii(d) + iv (b)

If required, the method to be employed to demonstrate compliance with the hourly emission limitation shall be Method 25 of 40 CFR Part 60, Appendix A.

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

## V. Testing Requirements (continued)

- 3.b** Emission Limitations:  
0.10 pound PE/hour  
0.44 TPY PE

**Applicable Compliance Method:**

The permittee may demonstrate compliance by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 pounds PE (filterable)/million cubic feet of natural gas by the dryer's maximum hourly fuel consumption rate (mmcu ft./hour).

If required, the methods to be employed to demonstrate compliance with the hourly emission limitation shall be Methods 1 - 5 of 40 CFR Part 60, Appendix A.

The annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000. Therefore, compliance with the annual emission limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

- 3.c** Emission Limitation:  
35.5 TPY OC

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the annual limitation above based on the record keeping requirements in section A.III.4 and shall be the sum of the monthly OC emissions for the calendar year.

- 3.d** Efficiency Limitation:  
100% capture efficiency for OC  
90% destruction efficiency for OC  
14.2 lbs OC/hour

**Applicable Compliance Method:**

The permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with the methods and procedures outlined in section V.1 of this permit.

- 3.e** Emission Limitations:  
for inks : 0.45 lb OC/lb of ink, as applied  
for fountain solutions : 0.25 lb OC /gallon of fountain solution, as applied  
for cleanup materials : 7.5 lbs OC/gallon of cleanup material, as applied

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the limitations above based on the record keeping requirements specified in section A.III.4 of this permit.

- 4.** Formulation data or USEPA Methods 24 and/or 24A shall be used to determine the OC contents of all the inks, fountain solutions and blanket wash materials.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/ Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OSM-380 (K012)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OSM-380), with thermal oxidizer #2	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-7171)	14.1 pounds organic compounds (OC)/hour (from the usage of inks, fountain solutions and blanket wash materials)
		35.2 tons OC/year (from the usage of inks, fountain solutions and blanket wash materials)
		0.10 particulate emissions (PE)/hour (from the burning of natural gas in the dryer)
		0.44 ton PE/year (from the burning of natural gas in the dryer)

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c Emissions of OC from the dryer that is associated with this emissions unit shall be controlled by a thermal oxidizer. The thermal oxidizer shall meet a requirement of 100 percent capture efficiency of all OC emitted in the dryer and a minimum destruction efficiency of 90 percent (by weight) for the OC.

## **2. Additional Terms and Conditions (continued)**

- 2.d** The 14.1 lbs OC/hour, 0.10 lb PE/hour and 0.44 ton PE/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

## **II. Operational Restrictions**

- 1.** The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
- 2.** The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1300 degrees Fahrenheit.
- 3.** The permittee shall comply with the following OC content restrictions for the graphic arts materials employed in this emissions unit:
  - a. for inks : 0.45 lb OC/lb of ink, as applied;
  - b. for fountain solutions : 0.25 lb OC /gallon of fountain solution, as applied; and
  - c. for cleanup (blanket wash) materials: 7.5 lbs OC/gallon of cleanup material, as applied.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.
- 2.** The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature 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.
- 3.** The permittee shall collect and record the following information each day for this emissions unit:
  - 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 less than 1300 degrees Fahrenheit; and
  - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the emissions unit was in operation.

### III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain monthly records which list the following information for the graphic arts materials (ink, fountain solution and blanket wash) employed in this emissions unit:
- a. the name and identification number of each graphic arts material employed;
  - b. the quantity of each graphic arts material employed, in pounds for inks and in gallons for other materials;
  - c. the OC content of each graphic arts material, in pounds/pound for inks and in pounds/gallon for other materials, as applied; and
  - d. the total OC emission rate of all graphic arts materials employed, in tons, calculated as follows:
    - i. for inks:
      - (a) multiply the usage rate of each ink (lbs) by the OC content of each ink (lbs/lb), as applied;
      - (b) sum (a) for all the inks employed;
      - (c) multiply (b) by the factor  $(1 - 0.2)$  [the percentage of the solvent retained in the web, after the dryer, is 20 percent\*]; and
      - (d) multiply (c) by the overall control factor of the thermal oxidizer  $(1 - .90)$ .
    - ii. for fountain solutions:
      - (a) multiply the usage rate of each fountain solution (gallons) by the OC content of each fountain solution (lbs/gallon), as applied;
      - (b) sum (a) for all the fountain solutions employed;
      - (c) multiply (b) by the factor  $(1 - 0.3)$  [the percentage of the fugitive emissions of OC is 30 percent\*];
      - (d) multiply (c) by the overall control factor of the thermal oxidizer  $(1 - .90)$ ; and
      - (e) multiply (b) by the factor  $0.3$  [the percentage of the fugitive emissions of OC is 30 percent\*].

### III. Monitoring and/or Record Keeping Requirements (continued)

iii. for auto blanket wash:

(a) multiply the usage rate of each auto blanket wash by the OC content of each auto blanket wash, as applied;

(b) sum (a) for all the auto blanket wash materials employed;

(c) multiply (b) by the factor (1 - 0.6) [the percentage of the fugitive emissions of OC is 60 percent\*];

(d) multiply (c) by the overall control factor of the thermal oxidizer (1 - .90); and

(e) multiply (b) by the factor 0.6 [the percentage of the fugitive emissions of OC is 60 percent\*].

iv. for hand blanket wash:

(a) multiply the usage rate of each hand blanket wash by the OC content of each auto blanket wash, as applied;

(b) sum (a) for all the hand blanket wash materials employed; and

(c) multiply (b) by the percentage not retained on the cloths (1 - .75)\*\*.

v. sum [i(d) + ii(d) + ii(e) + iii(d) + iii(e) + iv (c)] and divide by 2000.

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying inks, fountain solutions and/or blanket wash materials (i.e., for OC contents) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer did not comply with the temperature limitation specified in section A.II.2 of the terms and conditions of this permit.
4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time when the emissions unit was in operation and the capture (collection) system, control device, and/or monitoring equipment were down.
5. The permittee shall submit annual reports that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

## V. Testing Requirements

1. Within 6 months of the issuance of this permit and approximately every 2.5 years thereafter, the permittee shall conduct, or have conducted, performance testing for this emissions unit in order to demonstrate compliance with the hourly allowable OC emission rate and the required capture efficiency and destruction efficiency for the thermal incinerator. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. The destruction efficiency shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds between the inlet and outlet of the vapor control system. The test method selected shall be based on a consideration of the diversity of organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. The test(s) shall be conducted while the emissions unit is operating at its maximum rated capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

3. Compliance Methods Requirements: Compliance with the emission limitations in section B.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

## V. Testing Requirements (continued)

### 3.a Emission Limitations: 14.1 lbs OC/hr

Applicable Compliance Method:

OC emissions from this emissions unit shall be calculated as follows:

i. for inks:

(a) multiply the maximum inks usage rate (lbs/hr) by the maximum OC content of all the inks (lbs/lb), as applied;

(b) multiply (a) by the factor (1 - 0.2) [the percentage of the solvent retained in the web, after the dryer, is 20 percent\*]; and

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90).

ii. for fountain solutions:

(a) multiply the maximum fountain solutions usage rate (gallons/hr) by the maximum OC content of all the fountain solutions (lbs/gallon), as applied;

(b) multiply (a) by the factor (1 - 0.3) [the percentage of the fugitive emissions of OC is 30 percent\*];

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90); and

(d) multiply (a) by 0.3 [the percentage of the fugitive emissions of OC is 30 percent\*].

iii. for auto blanket wash:

(a) multiply the maximum auto blanket wash materials usage rate (gallons/hr) by the maximum OC content of all the auto blanket wash materials, as applied;

(b) multiply (a) by the factor (1 - 0.6) [the percentage of the fugitive emissions of OC is 60 percent\*];

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90); and

(d) multiply (a) by 0.6 [the percentage of the fugitive emissions of OC is 60 percent\*].

iv. for hand blanket wash:

(a) multiply the maximum hand blanket wash materials usage rate (gallons/hr) by the maximum OC content of all the auto blanket wash materials, as applied;

(b) multiply (a) by the percentage not retained on the cloths (1 - .75)\*\*.

v. sum i(c) + ii(c) + ii(d) + iii(c) + iii(d) + iv (b)

If required, the method to be employed to demonstrate compliance with the hourly emission limitation shall be Method 25 of 40 CFR Part 60, Appendix A.

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

## V. Testing Requirements (continued)

- 3.b** Emission Limitations:  
0.10 pound PE/hour  
0.44 TPY PE

**Applicable Compliance Method:**

The permittee may demonstrate compliance by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 pounds PE (filterable)/million cubic feet of natural gas by the dryer's maximum hourly fuel consumption rate (mmcu ft./hour).

If required, the methods to be employed to demonstrate compliance with the hourly emission limitation shall be Methods 1 - 5 of 40 CFR Part 60, Appendix A.

The annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000. Therefore, compliance with the annual emission limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

- 3.c** Emission Limitation:  
35.2 TPY OC

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the annual limitation above based on the record keeping requirements in section A.III.4 and shall be the sum of the monthly OC emissions for the calendar year.

- 3.d** Efficiency Limitation:  
100% capture efficiency for OC  
90% destruction efficiency for OC  
14.1 lbs OC/hour

**Applicable Compliance Method:**

The permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with the methods and procedures outlined in section V.1 of this permit.

- 3.e** Emission Limitations:  
for inks : 0.45 lb OC/lb of ink, as applied  
for fountain solutions : 0.25 lb OC /gallon of fountain solution, as applied  
for cleanup materials : 7.5 lbs OC/gallon of cleanup material, as applied

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the limitations above based on the record keeping requirements specified in section A.III.4 of this permit.

- 4.** Formulation data or USEPA Methods 24 and/or 24A shall be used to determine the OC contents of all the inks, fountain solutions and blanket wash materials.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OMW-320 (K013)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OMW-320)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c This emissions unit was installed prior to February 15, 1972 and, therefore, OAC rule 3745-21-07 is not applicable.

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

##### V. Testing Requirements

None

##### VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** OSM-331 (K014)  
**Activity Description:** Web Offset Heatset Printing

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OSM-331)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)

**2. Additional Terms and Conditions**

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c This emissions unit was installed prior to February 15, 1972 and, therefore, OAC rule 3745-21-07 is not applicable.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OMW-350 (K015)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OMW-350)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c This emissions unit was installed prior to February 15, 1972 and, therefore, OAC rule 3745-21-07 is not applicable.

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

##### V. Testing Requirements

None

##### VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** OMW-351 (K016)  
**Activity Description:** Web Offset Heatset Printing

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OMW-351)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)

**2. Additional Terms and Conditions**

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c This emissions unit was installed prior to February 15, 1972 and, therefore, OAC rule 3745-21-07 is not applicable.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OSM-327 (K018)  
**Activity Description:** Web Offset Heatset Printing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
heatset web offset printing line (OSM-327), with thermal oxidizer #3	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-7171)	14.8 pounds organic compounds (OC)/hour (from the usage of inks, fountain solutions and blanket wash materials)
		37 tons OC/year (from the usage of inks, fountain solutions and blanket wash materials)
		0.10 particulate emissions (PE)/hour (from the burning of natural gas in the dryer)
		0.44 ton PE/year (from the burning of natural gas in the dryer)

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c Emissions of OC from the dryer that is associated with this emissions unit shall be controlled by a thermal oxidizer. The thermal oxidizer shall meet a requirement of 100 percent capture efficiency of all OC emitted in the dryer and a minimum destruction efficiency of 90 percent (by weight) for the OC.

## **2. Additional Terms and Conditions (continued)**

- 2.d** The 14.8 lbs OC/hour, 0.10 lb PE/hour and 0.44 ton PE/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

## **II. Operational Restrictions**

- 1.** The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
- 2.** The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1300 degrees Fahrenheit.
- 3.** The permittee shall comply with the following OC content restrictions for the graphic arts materials employed in this emissions unit:
  - a. for inks : 0.45 lb OC/lb of ink, as applied;
  - b. for fountain solutions : 0.25 lb OC /gallon of fountain solution, as applied; and
  - c. for cleanup (blanket wash) materials: 7.5 lbs OC/gallon of cleanup material, as applied.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.
- 2.** The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature 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.
- 3.** The permittee shall collect and record the following information each day for this emissions unit:
  - 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 less than 1300 degrees Fahrenheit; and
  - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the emissions unit was in operation.

### III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain monthly records which list the following information for the graphic arts materials (ink, fountain solution and blanket wash) employed in this emissions unit:
- a. the name and identification number of each graphic arts material employed;
  - b. the quantity of each graphic arts material employed, in pounds for inks and in gallons for other materials;
  - c. the OC content of each graphic arts material, in pounds/pound for inks and in pounds/gallon for other materials, as applied; and
  - d. the total OC emission rate of all graphic arts materials employed, in tons, calculated as follows:
    - i. for inks:
      - (a) multiply the usage rate of each ink (lbs) by the OC content of each ink (lbs/lb), as applied;
      - (b) sum (a) for all the inks employed;
      - (c) multiply (b) by the factor  $(1 - 0.2)$  [the percentage of the solvent retained in the web, after the dryer, is 20 percent\*]; and
      - (d) multiply (c) by the overall control factor of the thermal oxidizer  $(1 - .90)$ .
    - ii. for fountain solutions:
      - (a) multiply the usage rate of each fountain solution (gallons) by the OC content of each fountain solution (lbs/gallon), as applied;
      - (b) sum (a) for all the fountain solutions employed;
      - (c) multiply (b) by the factor  $(1 - 0.3)$  [the percentage of the fugitive emissions of OC is 30 percent\*];
      - (d) multiply (c) by the overall control factor of the thermal oxidizer  $(1 - .90)$ ; and
      - (e) multiply (b) by the factor  $0.3$  [the percentage of the fugitive emissions of OC is 30 percent\*].

### III. Monitoring and/or Record Keeping Requirements (continued)

iii. for auto blanket wash:

(a) multiply the usage rate of each auto blanket wash by the OC content of each auto blanket wash, as applied;

(b) sum (a) for all the auto blanket wash materials employed;

(c) multiply (b) by the factor (1 - 0.6) [the percentage of the fugitive emissions of OC is 60 percent\*];

(d) multiply (c) by the overall control factor of the thermal oxidizer (1 - .90); and

(e) multiply (b) by the factor 0.6 [the percentage of the fugitive emissions of OC is 60 percent\*].

iv. for hand blanket wash:

(a) multiply the usage rate of each hand blanket wash by the OC content of each auto blanket wash, as applied;

(b) sum (a) for all the hand blanket wash materials employed; and

(c) multiply (b) by the percentage not retained on the cloths (1 - .75)\*\*.

v. sum [i(d) + ii(d) + ii(e) + iii(d) + iii(e) + iv (c)] and divide by 2000.

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying inks, fountain solutions and/or blanket wash materials (i.e., for OC contents) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer did not comply with the temperature limitation specified in section A.II.2 of the terms and conditions of this permit.
4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time when the emissions unit was in operation and the capture (collection) system, control device, and/or monitoring equipment were down.
5. The permittee shall submit annual reports that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

## V. Testing Requirements

1. Within 6 months of the issuance of this permit and approximately every 2.5 years thereafter, the permittee shall conduct, or have conducted, performance testing for this emissions unit in order to demonstrate compliance with the hourly allowable OC emission rate and the required capture efficiency and destruction efficiency for the thermal incinerator. The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency as specified in the USEPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement. The destruction efficiency shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds between the inlet and outlet of the vapor control system. The test method selected shall be based on a consideration of the diversity of organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. The test(s) shall be conducted while the emissions unit is operating at its maximum rated capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

3. Compliance Methods Requirements: Compliance with the emission limitations in section B.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

## V. Testing Requirements (continued)

**3.a** Emission Limitations:  
14.8 lbs OC/hr

Applicable Compliance Method:

OC emissions from this emissions unit shall be calculated as follows:

i. for inks:

(a) multiply the maximum inks usage rate (lbs/hr) by the maximum OC content of all the inks (lbs/lb), as applied;

(b) multiply (a) by the factor (1 - 0.2) [the percentage of the solvent retained in the web, after the dryer, is 20 percent\*]; and

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90).

ii. for fountain solutions:

(a) multiply the maximum fountain solutions usage rate (gallons/hr) by the maximum OC content of all the fountain solutions (lbs/gallon), as applied;

(b) multiply (a) by the factor (1 - 0.3) [the percentage of the fugitive emissions of OC is 30 percent\*];

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90); and

(d) multiply (a) by 0.3 [the percentage of the fugitive emissions of OC is 30 percent\*].

iii. for auto blanket wash:

(a) multiply the maximum auto blanket wash materials usage rate (gallons/hr) by the maximum OC content of all the auto blanket wash materials, as applied;

(b) multiply (a) by the factor (1 - 0.6) [the percentage of the fugitive emissions of OC is 60 percent\*];

(c) multiply (b) by the overall control factor of the thermal oxidizer (1 - .90); and

(d) multiply (a) by 0.6 [the percentage of the fugitive emissions of OC is 60 percent\*].

iv. for hand blanket wash:

(a) multiply the maximum hand blanket wash materials usage rate (gallons/hr) by the maximum OC content of all the auto blanket wash materials, as applied;

(b) multiply (a) by the percentage not retained on the cloths (1 - .75)\*\*.

v. sum i(c) + ii(c) + ii(d) + iii(c) + iii(d) + iv (b)

If required, the method to be employed to demonstrate compliance with the hourly emission limitation shall be Method 25 of 40 CFR Part 60, Appendix A.

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

## V. Testing Requirements (continued)

- 3.b** Emission Limitations:  
0.10 pound PE/hour  
0.44 TPY PE

**Applicable Compliance Method:**

The permittee may demonstrate compliance by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 pounds PE (filterable)/million cubic feet of natural gas by the dryer's maximum hourly fuel consumption rate (mmcu ft./hour).

If required, the methods to be employed to demonstrate compliance with the hourly emission limitation shall be Methods 1 - 5 of 40 CFR Part 60, Appendix A.

The annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000. Therefore, compliance with the annual emission limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

- 3.c** Emission Limitation:  
37 TPY OC

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the annual limitation above based on the record keeping requirements in section A.III.4 and shall be the sum of the monthly OC emissions for the calendar year.

- 3.d** Efficiency Limitation:  
100% capture efficiency for OC  
90% destruction efficiency for OC  
14.8 lbs OC/hour

**Applicable Compliance Method:**

The permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with the methods and procedures outlined in section V.1 of this permit.

- 3.e** Emission Limitations:  
for inks : 0.45 lb OC/lb of ink, as applied  
for fountain solutions : 0.25 lb OC /gallon of fountain solution, as applied  
for cleanup materials : 7.5 lbs OC/gallon of cleanup material, as applied

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the limitations above based on the record keeping requirements specified in section A.III.4 of this permit.

- 4.** Formulation data or USEPA Methods 24 and/or 24A shall be used to determine the OC contents of all the inks, fountain solutions and blanket wash materials.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** OSM-341 (K019)  
**Activity Description:** Sheetfed UV Press

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
non-heatset web offset sheetfed UV printing press (OSM-341)	OAC rule 3745-21-07(G)	None (refer to section A.II.1 of the terms and conditions of this permit).
	OAC rule 3745-31-05 (PTI No. 03 -10518)	0.48 pound organic compounds (OC)/hour (from the usage of fountain solutions)
		0.494 ton OC/month (from the usage of isopropyl alcohol)
		0.20 ton OC/month (from the usage of UV blanket wash materials)
		10.4 ton OC/year, based upon a rolling, 12-month period (from the usage of fountain solutions, isopropyl alcohol and UV blanket wash materials)

**2. Additional Terms and Conditions**

- 2.a The 0.48 pound OC/hour emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

**II. Operational Restrictions**

1. The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

## II. Operational Restrictions (continued)

2. The permittee shall comply with the following OC content restrictions for the materials employed in this emissions unit:
  - a. for inks: 0.0 lb OC/lb of ink, as applied;
  - b. for fountain solutions: 0.06 lb OC /gallon of fountain solution material, as applied; and
  - c. for cleanup (UV blanket wash and isopropyl alcohol) materials : 7.5 lbs OC/gallon of cleanup material, as applied.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records which list the following information for the graphic arts materials [ink, fountain solution and cleanup material (UV blanket wash and isopropyl alcohol)] employed in this emissions unit:
  - a. the name and identification number of each graphic arts material employed;
  - b. the quantity of each graphic arts material employed, in pounds for inks and in gallons for other materials;
  - c. the OC content of each graphic arts material, in pounds/pound for inks and in pounds/gallon for other materials, as applied; and
  - d. the total OC emission rate of all graphic arts materials employed, in tons, calculated as follows:
    - i. for fountain solutions:
      - (a) multiply the usage rate of each fountain solution (gallons) by the OC content of each fountain solution (lbs/gallon), as applied; and
      - (b) sum (a) for all the fountain solutions employed.
    - ii. for isopropyl alcohol:
      - (a) multiply the total usage rate of isopropyl alcohol employed (gallons) by the OC content of isopropyl alcohol, as applied.
    - iii. for UV blanket wash:
      - (a) multiply the usage rate of each UV blanket wash by the OC content of each UV blanket wash, as applied; and
      - (b) sum (a) for all the UV blanket wash materials employed.
    - iv. sum [i(b) + ii(a) + iii(b) ] and divide by 2000.
  - e. the rolling, 12-month summation of the monthly OC emission rates, in tons.
2. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

#### **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying inks, fountain solutions and/or blanket wash materials (i.e., for OC contents) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
3. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - i. all exceedances of the rolling,12-month summation of the monthly OC emission rates of 10.4 tons; and
  - ii. all exceedances of the monthly OC emission limitations of 0.494 ton and 0.20 ton.
4. The permittee shall submit annual reports that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitation:

0.48 pound OC/hour (from fountain solution material usage)

0.494 ton OC/month (from isopropyl alcohol usage)

0.20 ton OC/month (from UV blanket wash material usage)

10.4 ton OC/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the 0.48 pound OC/hour limitation by multiplying the maximum fountain solution material usage rate (gallons/hour) by the maximum OC content of all the fountain solution materials employed (pounds OC/gallon of fountain solution material), as applied.

If required, the method to be employed to demonstrate compliance with the hourly emission limitation shall be Method 25 of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the 0.494 ton OC/month based on the record keeping requirements specified in section A.III.1 of this permit.

The permittee shall demonstrate compliance with the 0.2 ton OC/month limitation based on the record keeping requirements specified in section A.III.1 of this permit.

The permittee shall demonstrate compliance with the annual emission limitation of 10.4 tons OC/rolling,12-month period based on the record keeping requirements specified in in section A.III.1 of this permit.

2. Formulation data or USEPA Methods 24 and/or 24A shall be used to determine the OC contents of all the inks, fountain solutions and blanket wash materials.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
non-heatset web offset sheetfed UV printing press (OSM-341)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. The permit to install for this emissions unit was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopropyl alcohol  
 TLV (ug/m3): 980,000  
 Maximum Hourly Emission Rate (lbs/hr): 3.81\*  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,520  
 MAGLC (ug/m3): 23,333

\*This hourly limitation is based on calculations from monthly cleanup usage and the assumption that all of the hourly OC emissions are from isopropyl alcohol, which has the lowest (i.e., worst-case) TLV.

### **III. Monitoring and/or Record Keeping Requirements (continued)**

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic 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 applying the "Air Toxic Policy" include the following:
- a. changes in the composition of the materials used, 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 for 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.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still 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. where 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.

### **IV. Reporting Requirements**

**None**

### **V. Testing Requirements**

**None**

### **VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OSM-342 (K020)  
**Activity Description:** Sheetfed UV Press

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
non-heatset web offset sheetfed UV printing press (OSM-342)	OAC rule 3745-21-07(G)	None (refer to section A.II.1 of the terms and conditions of this permit).
	OAC rule 3745-31-05 (PTI No. 03 -10518)	0.48 pound organic compounds (OC)/hour (from the usage of fountain solutions)
		0.494 ton OC/month (from the usage of isopropyl alcohol)
		0.20 ton OC/month (from the usage of UV blanket wash materials)
		10.4 ton OC/year, based upon a rolling, 12-month period (from the usage of fountain solutions, isopropyl alcohol and UV blanket wash materials)

##### 2. Additional Terms and Conditions

- 2.a The 0.48 pound OC/hour emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

##### II. Operational Restrictions

1. The permittee shall not employ any graphic arts material and/or cleanup material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

## II. Operational Restrictions (continued)

2. The permittee shall comply with the following OC content restrictions for the materials employed in this emissions unit:
  - a. for inks: 0.0 lb OC/lb of ink, as applied;
  - b. for fountain solutions: 0.06 lb OC /gallon of fountain solution material, as applied; and
  - c. for cleanup (UV blanket wash and isopropyl alcohol) materials : 7.5 lbs OC/gallon of cleanup material, as applied.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records which list the following information for the graphic arts materials [ink, fountain solution and cleanup material (UV blanket wash and isopropyl alcohol)] employed in this emissions unit:
  - a. the name and identification number of each graphic arts material employed;
  - b. the quantity of each graphic arts material employed, in pounds for inks and in gallons for other materials;
  - c. the OC content of each graphic arts material, in pounds/pound for inks and in pounds/gallon for other materials, as applied; and
  - d. the total OC emission rate of all graphic arts materials employed, in tons, calculated as follows:
    - i. for fountain solutions:
      - (a) multiply the usage rate of each fountain solution (gallons) by the OC content of each fountain solution (lbs/gallon), as applied; and
      - (b) sum (a) for all the fountain solutions employed.
    - ii. for isopropyl alcohol:
      - (a) multiply the total usage rate of isopropyl alcohol employed (gallons) by the OC content of isopropyl alcohol, as applied.
    - iii. for UV blanket wash:
      - (a) multiply the usage rate of each UV blanket wash by the OC content of each UV blanket wash, as applied; and
      - (b) sum (a) for all the UV blanket wash materials employed.
    - iv. sum [i(b) + ii(a) + iii(b) ] and divide by 2000.
  - e. the rolling, 12-month summation of the monthly OC emission rates, in tons.
2. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each liquid organic material employed; and
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

#### **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying inks, fountain solutions and/or blanket wash materials (i.e., for OC contents) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the record indicating noncompliance.
3. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - i. all exceedances of the rolling,12-month summation of the monthly OC emission rates of 10.4 tons; and
  - ii. all exceedances of the monthly OC emission limitations of 0.494 ton and 0.20 ton.
4. The permittee shall submit annual reports that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitation:

0.48 pound OC/hour (from fountain solution material usage)

0.494 ton OC/month (from isopropyl alcohol usage)

0.20 ton OC/month (from UV blanket wash material usage)

10.4 ton OC/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the 0.48 pound OC/hour limitation by multiplying the maximum fountain solution material usage rate (gallons/hour) by the maximum OC content of all the fountain solution materials employed (pounds OC/gallon of fountain solution material), as applied.

If required, the method to be employed to demonstrate compliance with the hourly emission limitation shall be Method 25 of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the 0.494 ton OC/month based on the record keeping requirements specified in section A.III.1 of this permit.

The permittee shall demonstrate compliance with the 0.2 ton OC/month limitation based on the record keeping requirements specified in section A.III.1 of this permit.

The permittee shall demonstrate compliance with the annual emission limitation of 10.4 tons OC/rolling,12-month period based on the record keeping requirements specified in in section A.III.1 of this permit.

2. Formulation data or USEPA Methods 24 and/or 24A shall be used to determine the OC contents of all the inks, fountain solutions and blanket wash materials.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
non-heatset web offset sheetfed UV printing press (OSM-341)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

- The permit to install for this emissions unit was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopropyl alcohol  
 TLV (ug/m3): 980,000  
 Maximum Hourly Emission Rate (lbs/hr): 3.81\*  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,520  
 MAGLC (ug/m3): 23,333

\*This hourly limitation is based on calculations from monthly cleanup usage and the assumption that all of the hourly OC emissions are from isopropyl alcohol, which has the lowest (i.e., worst-case) TLV.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic 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 applying the "Air Toxic Policy" include the following:
- a. changes in the composition of the materials used, 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 for 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.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still 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. where 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.

### IV. Reporting Requirements

None

### V. Testing Requirements

None

### VI. Miscellaneous Requirements

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Incinerator w/Heat Recovery (N002)  
**Activity Description:** Incinerator w/Heat Recovery

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
0.64 ton/hour incinerator, with heat recovery	OAC rule 3745-17-09(B)	0.10 pound particulate emissions (PE)/100 pounds of liquid, semi-solid or solid refuse and salvageable material charged
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20 percent opacity, as a six-minute average, except as otherwise provided by rule.
	OAC rule 3745-31-05 PTI #03-1261	None.

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the cause of the visible emissions;
  - c. the total duration of any visible emission incident; and
  - d. any corrective actions taken to eliminate the visible emissions.

#### **IV. Reporting Requirements**

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA district office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V. Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

- 1.a Emission Limitation:  
0.10 pound of particulate matter/100 pounds charged

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods and procedures in OAC rule 3745-17-03(B)(8).

- 1.b Emission Limitation:  
20 percent opacity, as a six-minute average, except as provided by rule

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Paper Separation Process #4 (cyclone) (P009)  
**Activity Description:** Paper/Air Separation Process

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
8.0 tons per hour paper separation process (cyclone #4)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-10834)	8 lbs particulate emissions (PE)/hour  35 tons PE/year

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c The 8 lbs PE/hour and 35 tons PE/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/ or reporting requirements to ensure compliance with these limitations.

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

## **V. Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section B.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitations:

8 pounds PE/hour

35 tons PE/year

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined by multiplying the maximum production rate (16,000 pounds of paper/hour) by an emission factor of 1.0 pound PE/ton paper shredded and baled\*.

If required, the permittee shall demonstrate compliance with the hourly limitation pursuant to Methods 1 - 5 of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be shown as long as compliance with the hourly limitation is maintained (the annual emission limitation was calculated by multiplying the hourly limitation by 8,760 and dividing by 2,000).

\* This emission factor was derived by the permittee based on the results of the emission testing conducted on this emissions unit on July 7, 1999.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Paper Separation Process #6 (cyclone) (P014)  
**Activity Description:** Paper/Air Separation Process

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
8.0 tons per hour paper separation process (cyclone #6)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-10834)	8 pounds particulate emissions (PE)/hour  24.9 tons PE /rolling, 12-month period

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c The 8.0 pounds PE/hour emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

##### II. Operational Restrictions

1. The maximum annual production rate for this emissions unit shall not exceed 49,800 tons of paper shredded and baled, based upon a rolling, 12-month summation of the monthly production rates.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the production rate (amount of paper shredded and baled), in tons;
  - b. the PE rate, in pounds, calculated using the following equation:  
  
PE (pounds/month) = production rate (from section 1.a) x emission factor of 1.0 pound PE/ton of paper shredded and baled\*;
  - c. the rolling, 12-month summation of the monthly production rates (amount of paper shredded and baled), in tons; and
  - d. the rolling, 12-month summation of the monthly PE rates, in tons.

\* This emission factor was derived by the permittee based on the results of emission testing conducted for this emissions unit on July 7, 1999.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that summarize the following:
  - a. all exceedances of the limitation of 24.9 tons PE/rolling, 12-month period; and
  - b. all exceedances of the production restriction of 49,800 tons of paper shredded and baled/rolling, 12-month period.
2. The permittee shall submit annual reports that summarize the actual annual particulate emissions and paper production rate for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation:  
24.9 tons PE/rolling, 12-month period  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.
  - 1.b Production Restriction:  
49,800 tons of paper shredded and baled/rolling, 12-month period  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.

**V. Testing Requirements (continued)**

**1.c** Emission Limitation:  
8.0 pounds PE/hour

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum production rate (16,000 pounds of paper/hour) by an emission factor of 1 pound PE/ton of paper shredded and baled\*, and then dividing by 2000.

If required, the permittee shall demonstrate compliance with the hourly limitation pursuant to Methods 1 - 5 of 40 CFR Part 60, Appendix A.

\* This emission factor was derived by the permittee based on the results of emission testing conducted on this emissions unit on July 7, 1999.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Paper Separation Process #7 (cyclone) (P015)  
**Activity Description:** Paper/Air Separation Process

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
9.9 tons per hour paper separation process (cyclone #7)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-10834)	9.9 pounds particulate emissions (PE)/hour  24.9 tons PE /rolling, 12-month period

##### 2. Additional Terms and Conditions

- The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- The 9.9 pounds PE/hour emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

##### II. Operational Restrictions

- The maximum annual production rate for this emissions unit shall not exceed 49,800 tons of paper shredded and baled, based upon a rolling, 12-month summation of the monthly production rates.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the production rate (amount of paper shredded and baled), in tons;
  - b. the PE rate, in pounds, calculated using the following equation:  
  
PE (pounds/month) = production rate (from section 1.a) x emission factor of 1.0 pound PE/ton of paper shredded and baled\*;
  - c. the rolling, 12-month summation of the monthly production rates (amount of paper shredded and baled), in tons; and
  - d. the rolling, 12-month summation of the monthly PE rates, in tons.

\* This emission factor was derived by the permittee based on the results of emission testing conducted for this emissions unit on July 7, 1999.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that summarize the following:
  - a. all exceedances of the limitation of 24.9 tons PE/rolling, 12-month period; and
  - b. all exceedances of the production restriction of 49,800 tons of paper shredded and baled/rolling, 12-month period.
2. The permittee shall submit annual reports that summarize the actual annual particulate emissions and paper production rate for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation:  
24.9 tons PE/rolling, 12-month period  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.
  - 1.b Production Restriction:  
49,800 tons of paper shredded and baled/rolling, 12-month period  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.

**V. Testing Requirements (continued)**

**1.c** Emission Limitation:  
9.9 pounds PE/hour

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum production rate (18,800 pounds of paper/hour) by an emission factor of 1 pound PE/ton of paper shredded and baled\*, and then dividing by 2000.

If required, the permittee shall demonstrate compliance with the hourly limitation pursuant to Methods 1 - 5 of 40 CFR Part 60, Appendix A.

\* This emission factor was derived by the permittee based on the results of emission testing conducted on this emissions unit on July 7, 1999.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Book Binding Line #5 (P021)  
**Activity Description:** Book Binding Line

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line #5	OAC rule 3745-21-07(G)  OAC rule 3745-31-05 (PTI No. 03-10834)	none (refer to section A.II.1 of the terms and conditions of this permit)  6.2 pounds organic compounds (OC)/hour  39.9 tons OC /rolling, 12-month period (for emissions units P021 and P023 combined)

**2. Additional Terms and Conditions**

- 2.a The 6.2 pounds OC/hour emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

**II. Operational Restrictions**

1. The permittee shall not employ any material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
2. The maximum annual isopropyl alcohol (or equivalent) usage for emissions units P021 and P023 combined shall not exceed 79,800 pounds/year, based upon a rolling, 12-month summation of the monthly usage rates.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record and maintain each month the following information for emissions units P021 and P023 combined:
  - a. the number of case-bound books produced;
  - b. the isopropyl alcohol usage rate, in gallons, calculated as follows:  
usage (gallons/month) =  $EF^* \times$  number of case-bound books produced (from section 1.a above)  
where:  
 $EF$  = emission factor ( 0.00007 gallon of isopropyl alcohol per case-bound book)\*;
  - c. the calculated OC emission rate [ $1.b \times 6.55^{**}$ ], in pounds ; and
  - d. the rolling, 12-month summation of the monthly isopropyl alcohol emission (usage) rates, in tons.

\*\* This is the density of isopropyl alcohol.
2. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each organic liquid material employed; and
  - b. documentation on whether or not each organic liquid material employed is a photochemically reactive material.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the daily record indicating noncompliance.
2. The permittee shall submit quarterly deviation (excursion) reports that summarize all exceedances of the limitation of 39.9 tons OC/rolling, 12-month period.
3. The permittee shall submit annual reports that summarize the actual annual OC emissions for emissions units P021 and P023 combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation:  
39.9 tons OC/rolling, 12-month period  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.
  - 1.b Emission Limitation:  
79,800 pounds/rolling, 12-month period (isopropyl alcohol usage)  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.

Facility Name: **R. R. Donnelley & Sons Company**

Facility ID: **03-39-03-0135**

Emissions Unit: **Book Binding Line #5 (P021)**

## **V. Testing Requirements (continued)**

**1.c** Emission Limitation:  
6.2 pounds OC/hour

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum material usage rate (gallons/hour) by the density of isopropyl alcohol (6.55 pounds OC/gallon).

If required, the method to be employed to demonstrate compliance with the hourly emission limitation shall be Method 25 of 40 CFR Part 60, Appendix A.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line #5	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

- The permit to install for this emissions unit (P176) was evaluated based on the actual 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopropyl alcohol  
 TLV (ug/m3): 980,000  
 Maximum Hourly Emission Rate (lbs/hr): 39.7\*  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5,999  
 MAGLC (ug/m3): 23,333

\*It was assumed that all isopropyl alcohol emissions from emissions units P021, P022, P023, P024, P025 and P026 were emitted from one stack.

### **III. Monitoring and/or Record Keeping Requirements (continued)**

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic 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 applying the "Air Toxic Policy" include the following:
- a. changes in the composition of the materials used, 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 for 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.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still 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. where 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.

### **IV. Reporting Requirements**

**None**

### **V. Testing Requirements**

**None**

### **VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Book Binding Line #6 (P022)  
**Activity Description:** Book Binding Line

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line #6	OAC rule 3745-21-07(G)  OAC rule 3745-31-05 (PTI No. 03-10834)	none (refer to section A.II.1 of the terms and conditions of this permit)  7.0 pounds organic compounds (OC)/hour  22.2 tons OC /rolling, 12-month period

**2. Additional Terms and Conditions**

- The 7 pounds OC/hour emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

**II. Operational Restrictions**

- The permittee shall not employ any material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
- The maximum annual isopropyl alcohol (or equivalent) usage for this emissions unit shall not exceed 44,400 pounds/year, based upon a rolling, 12-month summation of the monthly usage rates.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record and maintain each month the following information for emissions units P021 and P023 combined:
  - a. the number of case-bound books produced;
  - b. the isopropyl alcohol usage rate, in gallons, calculated as follows:  
usage (gallons/month) =  $EF^* \times$  number of case-bound books produced (from section 1.a above)  
where:  
 $EF$  = emission factor ( 0.00007 gallon of isopropyl alcohol per case-bound book)\*;
  - c. the calculated OC emission rate [ $1.b \times 6.55^{**}$ ], in pounds ; and
  - d. the rolling, 12-month summation of the monthly isopropyl alcohol emission (usage) rates, in tons.

\*\* This is the density of isopropyl alcohol.
2. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each organic liquid material employed; and
  - b. documentation on whether or not each organic liquid material employed is a photochemically reactive material.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the daily record indicating noncompliance.
2. The permittee shall submit quarterly deviation (excursion) reports that summarize all exceedances of the limitation of 22.2 tons OC/rolling, 12-month period.
3. The permittee shall submit annual reports that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation:  
22.2 tons OC/rolling, 12-month period  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.
  - 1.b Emission Limitation:  
44,400 pounds/rolling, 12-month period (isopropyl alcohol usage)  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.

Facility Name: **R. R. Donnelley & Sons Company**

Facility ID: **03-39-03-0135**

Emissions Unit: **Book Binding Line #6 (P022)**

## **V. Testing Requirements (continued)**

**1.c** Emission Limitation:  
7.0 pounds OC/hour

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum material usage rate (gallons/hour) by the density of isopropyl alcohol (6.55 pounds OC/gallon).

If required, the method to be employed to demonstrate compliance with the hourly emission limitation shall be Method 25 of 40 CFR Part 60, Appendix A.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line #6	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

- The permit to install for this emissions unit (P176) was evaluated based on the actual 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopropyl alcohol  
 TLV (ug/m3): 980,000  
 Maximum Hourly Emission Rate (lbs/hr): 39.7\*  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5,999  
 MAGLC (ug/m3): 23,333

\*It was assumed that all isopropyl alcohol emissions from emissions units P021, P022, P023, P024, P025 and P026 were emitted from one stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic 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 applying the "Air Toxic Policy" include the following:
  - a. changes in the composition of the materials used, 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 for 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.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still 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. where 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.

### IV. Reporting Requirements

None

### V. Testing Requirements

None

### VI. Miscellaneous Requirements

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Book Binding Line #7 (P023)  
**Activity Description:** Book Binding Line

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line #7	OAC rule 3745-21-07(G)  OAC rule 3745-31-05 (PTI No. 03-10834)	none (refer to section A.II.1 of the terms and conditions of this permit)  7.0 pounds organic compounds (OC)/hour  39.9 tons OC /rolling, 12-month period (for emissions units P021 and P023 combined)

**2. Additional Terms and Conditions**

- 2.a The 7.0 pounds OC/hour emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

**II. Operational Restrictions**

1. The permittee shall not employ any material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
2. The maximum annual isopropyl alcohol (or equivalent) usage for emissions units P021 and P023 combined shall not exceed 79,800 pounds/year, based upon a rolling, 12-month summation of the monthly usage rates.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record and maintain each month the following information for emissions units P021 and P023 combined:
  - a. the number of case-bound books produced;
  - b. the isopropyl alcohol usage rate, in gallons, calculated as follows:  
usage (gallons/month) =  $EF^* \times$  number of case-bound books produced (from section 1.a above)  
where:  
 $EF$  = emission factor ( 0.00007 gallon of isopropyl alcohol per case-bound book)\*;
  - c. the calculated OC emission rate [ $1.b \times 6.55^{**}$ ], in pounds ; and
  - d. the rolling, 12-month summation of the monthly isopropyl alcohol emission (usage) rates, in tons.

\*\* This is the density of isopropyl alcohol.
2. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each organic liquid material employed; and
  - b. documentation on whether or not each organic liquid material employed is a photochemically reactive material.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the daily record indicating noncompliance.
2. The permittee shall submit quarterly deviation (excursion) reports that summarize all exceedances of the limitation of 39.9 tons OC/rolling, 12-month period.
3. The permittee shall submit annual reports that summarize the actual annual OC emissions for emissions units P021 and P023 combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation:  
39.9 tons OC/rolling, 12-month period  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.
  - 1.b Emission Limitation:  
79,800 pounds/rolling, 12-month period (isopropyl alcohol usage)  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.

Facility Name: **R. R. Donnelley & Sons Company**

Facility ID: **03-39-03-0135**

Emissions Unit: **Book Binding Line #7 (P023)**

## **V. Testing Requirements (continued)**

**1.c** Emission Limitation:  
7.0 pounds OC/hour

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum material usage rate (gallons/hour) by the density of isopropyl alcohol (6.55 pounds OC/gallon).

If required, the method to be employed to demonstrate compliance with the hourly emission limitation shall be Method 25 of 40 CFR Part 60, Appendix A.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line #7	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

- The permit to install for this emissions unit (P176) was evaluated based on the actual 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopropyl alcohol  
 TLV (ug/m3): 980,000  
 Maximum Hourly Emission Rate (lbs/hr): 39.7\*  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5,999  
 MAGLC (ug/m3): 23,333

\*It was assumed that all isopropyl alcohol emissions from emissions units P021, P022, P023, P024, P025 and P026 were emitted from one stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic 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 applying the "Air Toxic Policy" include the following:
- a. changes in the composition of the materials used, 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 for 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.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still 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. where 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.

### IV. Reporting Requirements

None

### V. Testing Requirements

None

### VI. Miscellaneous Requirements

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Book Binding Line #9 (P024)  
**Activity Description:** Book Binding Line

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line #9	OAC rule 3745-21-07(G)	none (refer to section A.II.1 of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-10834)	5.3 pounds organic compounds (OC)/hour  23.2 tons OC /year

##### 2. Additional Terms and Conditions

- 2.a The 5.3 pounds OC/hour and 23.2 tons OC/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

##### II. Operational Restrictions

1. The permittee shall not employ any material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each organic liquid material employed; and
  - b. documentation on whether or not each organic liquid material employed is a photochemically reactive material.

##### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the daily record indicating noncompliance.

##### V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

**V. Testing Requirements (continued)**

Emission Limitation:  
5.3 pounds OC/hr  
23.2 tons OC/year

**Applicable Compliance Method:**

Compliance with the hourly limitation shall be determined by multiplying the maximum material usage rate by the density of isopropyl alcohol (6.55 pounds OC/gallon).

If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 25.

The annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000. Therefore, compliance with the annual emission limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line #9	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

- The permit to install for this emissions unit (P176) was evaluated based on the actual 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopropyl alcohol  
 TLV (ug/m3): 980,000  
 Maximum Hourly Emission Rate (lbs/hr): 39.7\*  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5,999  
 MAGLC (ug/m3): 23,333

\*It was assumed that all isopropyl alcohol emissions from emissions units P021, P022, P023, P024, P025 and P026 were emitted from one stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic 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 applying the "Air Toxic Policy" include the following:
  - a. changes in the composition of the materials used, 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 for 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.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still 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. where 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.

### IV. Reporting Requirements

None

### V. Testing Requirements

None

### VI. Miscellaneous Requirements

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Book Binding Line #10 (P025)  
**Activity Description:** Book Binding Line

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line #10	OAC rule 3745-21-07(G)  OAC rule 3745-31-05 (PTI No. 03-10834)	none (refer to section A.II.1 of the terms and conditions of this permit)  8.9 pounds organic compounds (OC)/hour  39 tons OC /year

##### 2. Additional Terms and Conditions

- 2.a The 8.9 pounds OC/hour and 39 tons OC/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

##### II. Operational Restrictions

1. The permittee shall not employ any material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each organic liquid material employed; and
  - b. documentation on whether or not each organic liquid material employed is a photochemically reactive material.

##### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the daily record indicating noncompliance.

##### V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

**V. Testing Requirements (continued)**

Emission Limitation:  
8.9 pounds OC/hr  
39 tons OC/year

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined by multiplying the maximum material usage rate by the density of isopropyl alcohol (6.55 pounds OC/gallon).

If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 25.

The annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000. Therefore, compliance with the annual emission limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line #10	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

- The permit to install for this emissions unit (P176) was evaluated based on the actual 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopropyl alcohol  
 TLV (ug/m3): 980,000  
 Maximum Hourly Emission Rate (lbs/hr): 39.7\*  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5,999  
 MAGLC (ug/m3): 23,333

\*It was assumed that all isopropyl alcohol emissions from emissions units P021, P022, P023, P024, P025 and P026 were emitted from one stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic 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 applying the "Air Toxic Policy" include the following:
- a. changes in the composition of the materials used, 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 for 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.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still 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. where 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.

### IV. Reporting Requirements

None

### V. Testing Requirements

None

### VI. Miscellaneous Requirements

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Book Binding Line 48 Box (P026)  
**Activity Description:** Book Binding Line

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line 48 box	OAC rule 3745-21-07(G)  OAC rule 3745-31-05 (PTI No. 03-10834)	none (refer to section A.II.1 of the terms and conditions of this permit)  5.3 pounds organic compounds (OC)/hour  23.2 tons OC /year

##### 2. Additional Terms and Conditions

- 2.a The 5.3 pounds OC/hour and 23.2 tons OC/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

##### II. Operational Restrictions

1. The permittee shall not employ any material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain the following information each month for this emissions unit:
  - a. the company identification of each organic liquid material employed; and
  - b. documentation on whether or not each organic liquid material employed is a photochemically reactive material.

##### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying materials (i.e., photochemically reactive materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the date of the daily record indicating noncompliance.

##### V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

## **V. Testing Requirements (continued)**

Emission Limitation:  
5.3 pounds OC/hr  
23.2 tons OC/year

### **Applicable Compliance Method:**

Compliance with the hourly limitation shall be determined by multiplying the maximum material usage rate by the density of isopropyl alcohol (6.55 pounds OC/gallon).

If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 25.

The annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000. Therefore, compliance with the annual emission limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
solvent dipping operation, book binding line 48 box	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

- The permit to install for this emissions unit (P176) was evaluated based on the actual 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopropyl alcohol  
 TLV (ug/m3): 980,000  
 Maximum Hourly Emission Rate (lbs/hr): 39.7\*  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5,999  
 MAGLC (ug/m3): 23,333

\*It was assumed that all isopropyl alcohol emissions from emissions units P021, P022, P023, P024, P025 and P026 were emitted from one stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic 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 applying the "Air Toxic Policy" include the following:
- a. changes in the composition of the materials used, 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 for 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.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still 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. where 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.

### IV. Reporting Requirements

None

### V. Testing Requirements

None

### VI. Miscellaneous Requirements

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Paper Separation Process #5 (cyclone) (P027)  
**Activity Description:** Paper/Air Separation Process

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
8.0 tons per hour paper separation process (cyclone #5)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-10834)	8 pounds particulate emissions (PE)/hour  24.9 tons PE /rolling, 12-month period

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c The 8.0 pounds PE/hour emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

##### II. Operational Restrictions

1. The maximum annual production rate for this emissions unit shall not exceed 49,800 tons of paper shredded and baled, based upon a rolling, 12-month summation of the monthly production rates.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the production rate (amount of paper shredded and baled), in tons;
  - b. the PE rate, in pounds, calculated using the following equation:  
  
PE (pounds/month) = production rate (from section 1.a) x emission factor of 1.0 pound PE/ton of paper shredded and baled\*;
  - c. the rolling, 12-month summation of the monthly production rates (amount of paper shredded and baled), in tons; and
  - d. the rolling, 12-month summation of the monthly PE rates, in tons.

\* This emission factor was derived by the permittee based on the results of emission testing conducted for this emissions unit on July 7, 1999.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that summarize the following:
  - a. all exceedances of the limitation of 24.9 tons PE/rolling, 12-month period; and
  - b. all exceedances of the production restriction of 49,800 tons of paper shredded and baled/rolling, 12-month period.
2. The permittee shall submit annual reports that summarize the actual annual particulate emissions and paper production rate for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation:  
24.9 tons PE/rolling, 12-month period  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.
  - 1.b Production Restriction:  
49,800 tons of paper shredded and baled/rolling, 12-month period  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.

**V. Testing Requirements (continued)**

**1.c** Emission Limitation:  
8.0 pounds PE/hour

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum production rate (16,000 pounds of paper/hour) by an emission factor of 1 pound PE/ton of paper shredded and baled\*, and then dividing by 2000.

If required, the permittee shall demonstrate compliance with the hourly limitation pursuant to Methods 1 - 5 of 40 CFR Part 60, Appendix A.

\* This emission factor was derived by the permittee based on the results of emission testing conducted on this emissions unit on July 7, 1999.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Paper Separation Process #1 (cyclone) (P028)  
**Activity Description:** Paper/Air Separation Process

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
8.0 tons per hour paper separation process (cyclone #1)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-10834)	8 lbs particulate emissions (PE)/hour 35 tons PE/year

##### 2. Additional Terms and Conditions

- The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- The 8 lbs PE/hour and 35 tons PE/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

## **V. Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section B.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitations:

8 pounds PE/hour

35 tons PE/year

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined by multiplying the maximum production rate (16,000 pounds of paper/hour) by an emission factor of 1.0 pound PE/ton paper shredded and baled\*.

If required, the permittee shall demonstrate compliance with the hourly limitation pursuant to Methods 1 - 5 of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be shown as long as compliance with the hourly limitation is maintained (the annual emission limitation was calculated by multiplying the hourly limitation by 8,760 and dividing by 2,000).

\* This emission factor was derived by the permittee based on the results of the emission testing conducted on this emissions unit on July 7, 1999.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Paper Separation Process #2 (cyclone) (P029)  
**Activity Description:** Paper/Air Separation Process

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
8.0 tons per hour paper separation process (cyclone #2)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-10834)	8 lbs particulate emissions (PE)/hour  35 tons PE/year

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c The 8 lbs PE/hour and 35 tons PE/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

## **V. Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section B.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitations:

8 pounds PE/hour

35 tons PE/year

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined by multiplying the maximum production rate (16,000 pounds of paper/hour) by an emission factor of 1.0 pound PE/ton paper shredded and baled\*.

If required, the permittee shall demonstrate compliance with the hourly limitation pursuant to Methods 1 - 5 of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be shown as long as compliance with the hourly limitation is maintained (the annual emission limitation was calculated by multiplying the hourly limitation by 8,760 and dividing by 2,000).

\* This emission factor was derived by the permittee based on the results of the emission testing conducted on this emissions unit on July 7, 1999.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/ Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Paper Separation Process #3 (cyclone) (P030)  
**Activity Description:** Paper/Air Separation Process

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
8.0 tons per hour paper separation process (cyclone #3)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-10834)	8 lbs particulate emissions (PE)/hour  35 tons PE/year

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c The 8 lbs PE/hour and 35 tons PE/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

## **V. Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section B.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitations:

8 pounds PE/hour

35 tons PE/year

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined by multiplying the maximum production rate (16,000 pounds of paper/hour) by an emission factor of 1.0 pound PE/ton paper shredded and baled\*.

If required, the permittee shall demonstrate compliance with the hourly limitation pursuant to Methods 1 - 5 of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be shown as long as compliance with the hourly limitation is maintained (the annual emission limitation was calculated by multiplying the hourly limitation by 8,760 and dividing by 2,000).

\* This emission factor was derived by the permittee based on the results of the emission testing conducted on this emissions unit on July 7, 1999.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Paper Separation Process #8 (cyclone) (P031)  
**Activity Description:** Paper/Air Separation Process

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
8.0 tons per hour paper separation process (cyclone #8)	OAC rule 3745-17-11(B)	none (refer to section A.I.2.a of the terms and conditions of this permit)
	OAC rule 3745-17-07(A)	none (refer to section A.I.2.b of the terms and conditions of this permit)
	OAC rule 3745-31-05 (PTI No. 03-10834)	8 lbs particulate emissions (PE)/hour  35 tons PE/year

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.
- 2.c The 8 lbs PE/hour and 35 tons PE/year emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

None

##### IV. Reporting Requirements

None

## **V. Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section B.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitations:

8 pounds PE/hour

35 tons PE/year

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined by multiplying the maximum production rate (16,000 pounds of paper/hour) by an emission factor of 1.0 pound PE/ton paper shredded and baled\*.

If required, the permittee shall demonstrate compliance with the hourly limitation pursuant to Methods 1 - 5 of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be shown as long as compliance with the hourly limitation is maintained (the annual emission limitation was calculated by multiplying the hourly limitation by 8,760 and dividing by 2,000).

\* This emission factor was derived by the permittee based on the results of the emission testing conducted on this emissions unit on July 7, 1999.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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