



State of Ohio Environmental Protection Agency

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

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 14-05314**

**DATE:** 8/22/2002

International Paper Company  
Marshall Williams  
990 Reading Road  
Mason, OH 450400000

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

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

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

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

Very truly yours,

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

cc: USEPA

HCDES



**Permit To Install  
Terms and Conditions**

**Issue Date: 8/22/2002  
Effective Date: 8/22/2002**

**FINAL PERMIT TO INSTALL 14-05314**

Application Number: 14-05314  
APS Premise Number: 1483090119  
Permit Fee: **\$200**  
Name of Facility: International Paper Company  
Person to Contact: Marshall Williams  
Address: 990 Reading Road  
Mason, OH 450400000

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**990 Reading Road  
Mason, Ohio**

Description of proposed emissions unit(s):  
**New 66 inch 3-color flexographic printing die cutter for corrugated sheets.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

**Part I - GENERAL TERMS AND CONDITIONS****A. Permit to Install General Terms and Conditions****1. Compliance Requirements**

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

**2. Reporting Requirements Related to Monitoring and Record keeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping 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 record keeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**3. Records Retention Requirements**

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

**4. Inspections and Information Requests**

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

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

**5. Scheduled Maintenance/Malfunction Reporting**

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

**6. Permit Transfers**

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

**7. Air Pollution Nuisance**

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

**8. Termination of Permit to Install**

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

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

**International Paper Company**  
**PTI Application: 14-05314**  
**Issued: 8/22/2002**

**Facility ID: 1483090119**

and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

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

**10. Public Disclosure**

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

**11. Applicability**

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

**12. Best Available Technology**

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

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

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

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**PTI Application: 14-05314**  
**Issued: 8/22/2002**

**Facility ID: 1483090119**

#### **14. Construction Compliance Certification**

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

#### **15. Fees**

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

### **B. Permit to Install Summary of Allowable Emissions**

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	13.27
ammonia	4.3
monoethanolamine	0.99

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K008 - 66 inch 3-color flexographic printing die cutter for corrugated sheets using water-based inks	OAC rule 3745-31-05(A)(3)	3.03 lbs VOC/hr 13.27 TPY VOC 0.98 lb ammonia/hr 4.3 TPY ammonia 1.97 lbs monoethanolamine/hr 0.99 TPY monoethanolamine
		See T&Cs A.2.a. through A.2.d.
	OAC rule 3745-31-05(D) Synthetic Minor to Avoid Title V Major Source Requirements and 40 CFR 63 Subpart KK MACT Emission Requirements	See T&C A.2.f.
	40 CFR Part 63 Subpart KK	See T&C A.2.f.
	OAC rule 3745-21-09(Y)(1)(a)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

### 2. Additional Terms and Conditions

- 2.a Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the VOC, ammonia and monoethanolamine emissions limitations, compliance with the

VOC, ammonia and monoethanolamine content limitations, compliance with the rolling, 12-month Hazardous Air Pollutants (HAPs) emissions limitations and compliance with the Ohio EPA Air Toxics Policy.

- 2.b** The VOC content as applied, of each ink employed in emissions unit K008 shall not exceed 2.8% VOC by volume of the volatile matter in the ink.
- 2.c** The ammonia content of each ink employed in emissions unit K008 shall not exceed 0.068 lb. ammonia per gallon of ink, as applied.
- 2.d** The monoethanolamine content of each ink employed in emissions unit K008 shall not exceed 0.14 lb. monoethanolamine per gallon of ink, as applied.
- 2.e** The hourly emission limitations outlined in Section A.1. are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.
- 2.f** The total allowable usage of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility shall not exceed 9.9\* TPY for any single HAP and 24.9\* TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

\* This assumes the HAP(s) emitted are the same as the amounts of HAP(s) used since all HAP(s) used are evaporated.

The permittee has existing records to demonstrate compliance with the rolling, 12-month summation limit upon issuance of the permit.

## **B. Operational Restrictions**

None

## **C. Monitoring and/or Record keeping Requirements**

- 1.** The permittee shall collect and record the following information each month for emissions unit K008:
  - a.** The name and identification number of each ink, as applied;
  - b.** The volume, in gallons, of each ink, as applied;

- c. The VOC content of each ink, as applied, in % VOC by volume of the total volatile matter in the ink;
  - d. The VOC content of each ink, as applied, in pounds of VOC per gallon of ink;
  - e. The ammonia content of each ink, as applied, in pounds of ammonia per gallon of ink;
  - f. The monoethanolamine content of each ink, as applied, in pounds of monoethanolamine per gallon of ink;
  - g. The total VOC emissions from all inks employed, in pounds [the sum of (b) times (d) for each ink];
  - h. The total ammonia emissions from all inks employed, in pounds [the sum of (b) times (e) for each ink]; and
  - i. The total monoethanolamine emissions from all inks employed, in pounds [the sum of (b) times (f) for each ink].
2. The permittee shall collect and record the following information each month for the entire facility:
- a. The name and identification number of each ink and coating, employed;
  - b. The individual Hazardous Air Pollutant (HAP) content for each HAP of each ink and coating in pounds of individual HAP per gallon of ink, as applied;
  - c. The total combined HAP content of each ink and coating in pounds of combined HAPs per gallon of ink, as applied [sum all the individual HAP contents from (b)];
  - d. The number of gallons of each ink and coating employed;
  - e. The name and identification of each cleanup material employed;
  - f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
  - g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];

Emissions Unit ID: **K008**

- h. The number of gallons of each cleanup material employed;
- i. The total individual HAP usage for each HAP from all inks, coating and cleanup materials employed, in pounds per month [for each HAP the sum of (b) times (d) for each coating plus the sum of (f) times (h) for each cleanup material];
- j. The total combined HAP usage from all inks, coatings and cleanup materials employed, in pounds per month [the sum of (c) times (d) for each coating plus the sum of (g) times (h) for each cleanup material];
- k. The updated rolling, 12-month summation of usage for each individual HAP emissions\*\*, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- l. The updated rolling, 12-month summation of usage for total combined HAP emissions\*\*, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Department of Environmental Services contact. This information does not have to be kept on a individual emissions unit basis.

\*\* This assumes the HAP(s) emitted are the same as the amounts of HAP(s) used since all HAP(s) used are evaporated.

3. The permit to install for this emissions unit K008 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 Ground-Level Concentration (MAGLC).

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

Pollutant: ammonia

TLV (ug/m<sup>3</sup>): 17,410

Maximum Hourly Emission Rate (lb/hr): 0.98

Predicted 1-Hour Maximum Ground-Level Concentration ( $\mu\text{g}/\text{m}^3$ ): 211

MAGLC ( $\mu\text{g}/\text{m}^3$ ): 414.5

Physical changes to or 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 Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be

satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
4. If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. A description of the parameters changed (composition of materials, new pollutants

emitted, change in stack/exhaust parameters, etc.);

- b. Documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. When the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **D. Reporting Requirements**

1. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying inks (see terms A.2.b, A.2.c. and A.2.d). The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month in which the noncomplying inks were first employed.
2. The permittee shall submit annual reports to the Hamilton County Department of Environmental Services which specify the total VOC, ammonia and monoethanolamine emissions from emissions unit K008 for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedance of the HAP emissions limitations set forth in term A.2.f. If no exceedances occurred during the reporting period then a report is required stating so. This report shall also include any corrective actions that were taken to achieve compliance. These reports shall be submitted as specified in the General Terms and Conditions of this permit.

#### **E. Testing Requirements**

1. Emissions Limitations

3.03 lbs VOC/hr  
 13.27 TPY VOC

##### **Compliance Method**

Compliance with the lbs VOC/hr emissions limitation shall be demonstrated by multiplying the actual ink usage rate (gallons of ink per hour) by the actual ink VOC content, as applied (lbs VOC per gallon of ink). Compliance with the TPY VOC emissions limitation shall be demonstrated by an annual summation of the monthly VOC emissions as calculated in Term and Condition C.1.g.

**2. Emissions Limitations**

0.98 lb ammonia/hr  
4.3 TPY ammonia

**Compliance Method**

Compliance with the lb ammonia/hr emissions limitation shall be demonstrated by multiplying the actual ink usage rate (gallons of ink per hour) by the actual ink ammonia content, as applied (lbs ammonia per gallon of ink). Compliance with the TPY ammonia emissions limitation shall be demonstrated by an annual summation of the monthly ammonia emissions as calculated in Term and Condition C.1.h.

**3. Emissions Limitations**

1.97 lbs monoethanolamine/hr  
0.99 TPY monoethanolamine

**Compliance Method**

Compliance with the lbs monoethanolamine/hr emissions limitation shall be demonstrated by multiplying the actual ink usage rate (gallons of ink per hour) by the actual ink monoethanolamine content, as applied (lbs monoethanolamine per gallon of ink). Compliance with the TPY monoethanolamine emissions limitation shall be demonstrated by an annual summation of the monthly monoethanolamine emissions as calculated in Term and Condition C.1.i.

**4. Emissions Limitations**

9.9 TPY for any single HAP  
24.9 TPY for any combination of HAPs

**Compliance Method**

Compliance with the HAPs emissions limitations shall be demonstrated by the actual rolling, 12-month HAPs emissions records as calculated in Terms and Conditions C.2.k. and C.2.l.

**5. Emissions Limitations**

Emissions Unit ID: **K008**

The VOC content as applied, of each ink employed in emissions unit K008 shall not exceed 2.8% VOC by volume of the volatile matter in the ink.

#### Compliance Method

USEPA methods 24 and 24A shall be used to determine the VOC content for flexographic printing lines and related coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

### 6. Emissions Limitations

The ammonia content of each ink employed in emissions unit K008 shall not exceed 0.068 lb. ammonia per gallon of ink, as applied.

#### Compliance Method

Formulation data shall be used to determine the ammonia content of the inks.

### 7. Emissions Limitations

The monoethanolamine content of each ink employed in emissions unit K008 shall not exceed 0.14 lb. monoethanolamine per gallon of ink, as applied.

#### Compliance Method

Formulation data shall be used to determine the monoethanolamine content of the inks.

## **F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary for monoethanolamine because the emissions unit's maximum annual monoethanolamine emissions will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of monoethanolamine to increase to

above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

2. The following terms and conditions of this permit are federally enforceable: A., C.1, C.2., D. and E.